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(54) **CONFORMATIONALLY RIGID ARYL PROSTAGLANDINS FOR USE IN GLAUCOMA THERAPY**

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(51) **Int. Cl.**[7] **A61K 31/557**

(52) **U.S. Cl.** **514/530**; 514/443; 514/469; 514/569; 514/621; 514/622; 514/657; 514/681; 514/682; 514/719; 514/729

(58) **Field of Search** 514/530, 443, 514/469, 569, 621, 622, 657, 681, 682, 719, 729

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(57) **ABSTRACT**

Conformationally rigid aryl prostaglandins are useful in the treatment of glaucoma and ocular hypertension. Also disclosed are ophthalmic pharmaceutical compositions comprising said prostaglandins.

11 Claims, No Drawings

CONFORMATIONALLY RIGID ARYL PROSTAGLANDINS FOR USE IN GLAUCOMA THERAPY

This application is a 371 of PCT/US96/17901 filed Nov. 12, 1996 which is a CIP of 08/480,707 filed Jun. 7, 1995 now U.S. Pat. No. 5,698,733.

BACKGROUND OF THE INVENTION

The present invention relates to the use of prostaglandins and prostaglandin analogues for the treatment of glaucoma and ocular hypertension. As used herein, the terms "prostaglandin" and "PG" shall refer to prostaglandins and derivatives and analogues thereof, except as otherwise indicated by context.

Naturally-occurring prostaglandins, especially prostaglandins of the F series (such as $PGF_{2\alpha}$ and the E series (such as PGE_2), are known to lower intraocular pressure (IOP) after topical ocular instillation, but can cause conjunctival hyperemia and/or edema as well as inflammation. Many synthetic prostaglandins have been observed to lower intraocular pressure, but most such compounds also produce the aforementioned side effects which significantly limit their clinical utility.

Various attempts have been made to overcome these well-known side-effects. Some have synthesized derivatives of naturally-occurring prostaglandins in an attempt to design out selectively the side effects while maintaining the IOP-lowering effect. See, e.g., Stjernschantz et al. (U.S. Pat. Nos. 5,422,368 and 5,321,128), Woodward et al. (U.S. Pat. No. 5,093,329), Chan et al. (WO 92/08465 and U.S. Pat. No. 5,446,041). Others, including Ueno et al. (EP 330 511 A2) and Wheeler (EP 435 682 A2) have tried complexing prostaglandins with various cyclodextrins.

SUMMARY OF THE INVENTION

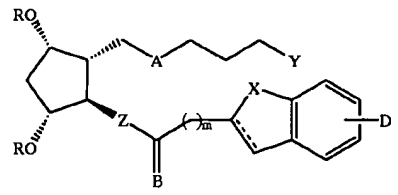
It has now been unexpectedly discovered that certain conformationally rigid analogues of $PGF_{2\alpha}$ will lower or control IOP with no or significantly reduced side effects of conjunctival hyperemia and/or edema. An agent which exhibits comparable efficacy, but with reduced side effects when compared to other agents, is said to have an improved therapeutic profile.

While bound by no theories, it is believed that increased conformational rigidity resulting from the presence of a bicyclic ring at the terminus of the omega chain of the prostaglandins of the present invention allows increased discrimination amongst the various PG receptors, which, in turn, allows a higher separation of desirable and undesirable activities, and therefore an improved therapeutic profile.

DETAILED DESCRIPTION OF THE INVENTION

The conformationally rigid aryl prostaglandins which are useful in the compositions of the present invention have the general formula (I):

(I)



wherein:

Y=C(O)NR_1R_2, CH_2OR_3, $CH_2NR_1R_2$, CO_2R_1, CO_2M, where M is a cationic salt moiety;

R_1, R_2 (same or different)=H, C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl;

R, R_3 (same or different)=C(O)R_4, or H, where R_4=C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl;

A=CH_2CH_2, cis or trans CH=CH, or C≡C;

Z=CH_2CH_2, trans CH=CH;

X=O, S(O)$_n$, $(CH_2)_n$, or CH_2O, where n=0, 1, or 2;

B=H and OH in either configuration, or a double bonded O;

D=R_1, OR_1, halogen, S(O)$_n R_4$, NO_2, NR_1R_2, or CF_3, where n=0, 1, or 2, and R_1, R_2, and

R_4 are as defined above; and

m=0, 1, or 2.

Most preferred compounds include:

II. (5Z, 13E)-(9S, 11R, 15S)-15-(2-indanyl)-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5, 13-prostadienoic acid isopropyl ester.

III. (5Z)-(9S, 11R, 15R)-15-(2-indanyl)-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5-prostenoic acid isopropyl ester.

IV. (5Z, 13E)-(9S, 11R, 15S)-15-(2R-(1,2,3,4-tetrahydronaphthyl))-trihydroxy-16, 17, 18, 19, 20-pentanor-5, 13-prostadienoic acid isopropyl ester.

V. (5Z, 13E)-(9S, 11R, 15S)-15-(2S-(1,2,3,4-tetrahydronaphthyl))-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5, 13-prostadienoic acid isopropyl ester.

VI. (5Z, 13E)-(9S, 11R, 15R)-15-(2-benzo[b]furyl)-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5, 13-prostadienoic acid isopropyl ester.

VII. (5Z, 13E)-(9S, 11R, 15R)-15-(2R-(2,3-dihydrobenzo[b]furyl)-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5, 13-prostadienoic acid isopropyl ester.

VIII. (5Z, 13E)-(9S, 11R, 15R)-15-(2S-(2,3-dihydrobenzo[b]furyl)-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5, 13-prostadienoic acid isopropyl ester.

IX. (5Z, 13E)-(9R, 11R, 15R)-15-(2R-[3,4-dihydro-2H-benzo[1,2-b]pyran-2-yl)-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5, 13-prostadienoic acid isopropyl ester.

X. (5Z, 13E)-(9S, 11R, 15R)-15-(2S-3,4-dihydro-2H-benzo[1,2-b]pyran-2-yl)-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5,13-prostadienoic acid isopropyl ester.

Some of the above-mentioned prostaglandins are disclosed in U.S. Pat. No. 4,152,527 (Hess et al.) issued on May 1, 1979, and in Hyashi, M., et al., *J. Med. Chem.* 23:519 (1980). To the extent that U.S. Pat. No. 4,152,527 discloses the synthesis of the prostaglandins of the present invention, that patent is incorporated by reference herein.

The compounds of formula (I) wherein Z=CH_2CH_2 (and the other constituents are as defined above) are believed to be novel. The preferred novel $PGF_{2\alpha}$ derivatives include those novel compounds of formula (I) wherein: X=CH_2 and A=CH_2CH_2, or cis CH=CH.

The compounds of formula (I) can be prepared by generally employing the methods disclosed in the foregoing

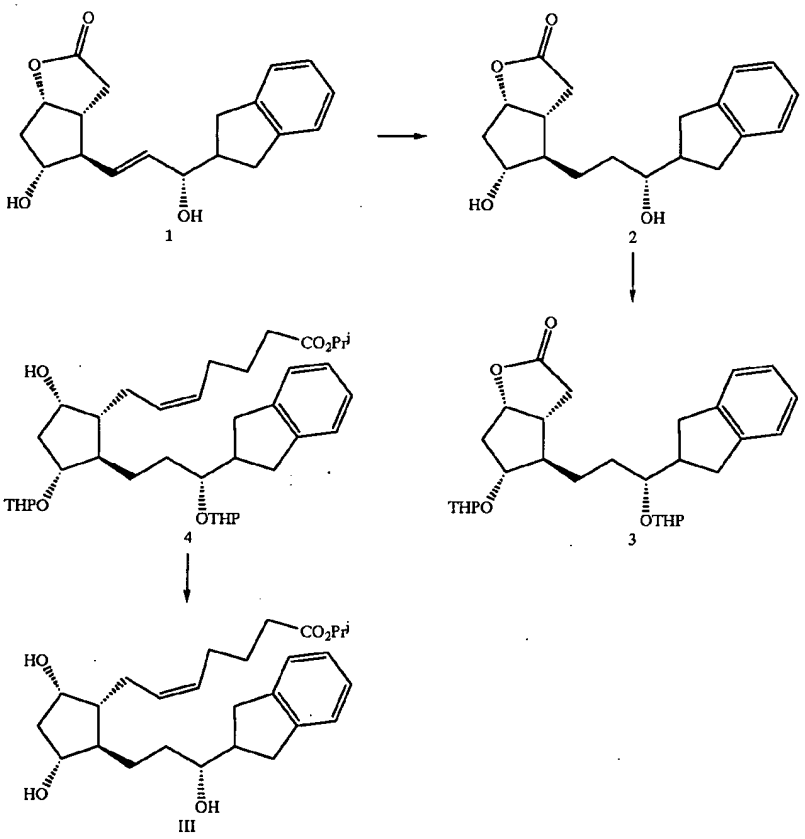
references or in the following example. The following synthesis is representative of those which may be used to prepare compounds of the present invention. Those skilled in the art will appreciate the modifications to the synthesis of Example 1 necessary to yield such compounds.

In the foregoing illustrations, as well as those provided hereinafter, a hatched line, as used e.g. at carbon 9, indicates the α configuration. A solid triangular line indicates the β configuration. Dashed lines on bonds indicate a single or double bond. Two solid lines between carbons indicate a double bond of the specified configuration.

In the Example 1 which follows, the following standard abbreviations are used: g=grams (mg=milligrams); mol=moles (mmol=millimoles); mL=milliliters; mm Hg=millimeters of mercury; mp=melting point; bp=boiling point; h=hours; and min=minutes. In addition, "NMR" refers to nuclear magnetic resonance spectroscopy and "MS" refers to mass spectrometry.

EXAMPLE 1

Synthesis of (5Z)-(9S, 11R, 15R)-15-(2-indanyl)-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5-prostenoic acid isopropyl ester (III).



A:[3aR, 4R(1E, 3R), 5R, 6aS]-4-[3-hydroxy-3-(2-indanyl)propyl]-5-hydroxy-hexahydro-2H-cyclopental[b]furan-2-one (2)

A solution of olefin 1 (0.7g, 2.2 mmol) [synthesis described in: *J. Med. Chem.* 26:328 (1983)] in 10 mL of a 1:1 v:v mixture of methanol:ethyl acetate was hydrogenated in the presence of 10% Pd/C (50mg) at 40 psi in a Parr hydrogenation apparatus for 1h. The mixture was filtered through Celite 521 and concentrated to afford 2, which was used in the next step without further purification.

B: [3aR, 4R(1E,3R), 5R, 6aS]-4-[3-(2-indanyl)-3-(tetrahydropyran-2-yloxy)propyl]-5-(tetrahydropyran-2-yloxy)-hexahydro-2H-cyclopenta[b]furan-2-one (3)

Compound 2 from above was dissolved in CH_2Cl_2 (30mL) and the mixture was cooled to 0° C. 3,4-Dihydro-2H-pyran was added (0.42 g, 5.0 mmol), followed by p-toluenesulfonic acid monohydrate (50mg, 0.2 mmol). The solution was stirred at room temperature for 2h, poured into saturated aqueous $NaHCO_3$, and extracted with CH_2Cl_2. The solution was dried over $MgSO_4$, filtered, and concentrated, and the residue was chromatographed on Silica Gel 60 (230–400 mesh ASTM) to afford 0.4 g (36%) of 3 as a viscous oil. ^1H NMR ($CDCl_3$) δ7.2 (m, 4H), 5.0 (m, 1H), 4.7 (m, 2H), 4.1 (m, 1H), 3.9–3.6 (m, 3H), 3.5 (m, 2H), 3.2–2.5 (bm, 8H), 2.4-2.0 (m, 1H), 1.8–1.3(m, 18H).

C: (5Z)-(9S, 11R, 15R)-11,15-bis(tetrahydropyran-2-yloxy)-9-hydroxy-15-(2-indanyl)-16,17,18,19,20-pentanor-5-prostenoic acid isopropyl ester (4)

To a −78° C. solution of lactone 3 (0.4 g, 0.8 mmol) in toluene (10 mL) was added a 1.5 M solution of DIBAL-H in hexane (1 mL, 1 mmol). After stirring for 2 h at 0° C.,

isopropanol (0.2 mL) was added, the mixture was poured into a solution of sodium potassium tartrate, extracted with ethyl acetate (2×50 mL), dried ($MgSO_4$), and concentrated to afford 0.21 g (52%) of crude lactol.

To a solution of (4-carboxybutyl)triphenylphosphonium bromide (0.13 g, 0.3 mmol) in DMSO (6 mL) was added a DMSO solution of sodium methylsulfinylmethide (0.6 mmol, 0.2 M in DMSO). To the mixture was added dropwise a solution of the above lactol (0.15 g, 0.3 mmol) in DMSO (3 mL). The solution was stirred for 16 h at 50° C., cooled to room temperature, and quenched by the addition of 10% aqueous citric acid to pH 5.5. The mixture was extracted with ethyl acetate, dried ($MgSO_4$), filtered, and concentrated.

The crude acid (0.2g, 0.4 mmol) was dissolved in acetone (20 mL) and treated with DBU (0.15 g, 1.0 mmol) and 2-iodopropane (0.17g, 1.0 mmol) for 16h at 23° C., then poured into water and extracted with ether (2×50 mL). The residue was purified by flash chromatography on Silica Gel 60 (230–400 mesh ASTM) with 3:1 hexanes:ethyl acetate to furnish 0.175 g (71%) of the isopropyl ester 4. PMR ($CDCl_3$) δ7.13 (m, 4H), 5.4 (m, 2H), 4.7 (m, 2H), 5.0 (hept, J=6.3 Hz, 1H), 4.8–4.6 (m, 2H), 4.1–3.6 (m, 5H), 3.5(m, 2H), 3.1–2.7 (6m, 4H), 2.3 (t, 2H), 2.1 (m, 2H), 1.9–1.2 (bm, 29H), 1.2 (d, J=6.3 Hz, 6H).

D: (5Z)-(9S,11R,15R)-15-(2-indanyl)-9, 11, 15-trihydroxy-16, 17, 18, 19, 20-pentanor-5-prostenoic acid isopropyl ester (III)

The isopropyl ester, 4, (0.10 g, 0.16 mmol) was dissolved in acetic acid/THF/H_2O (4:2:1) and stirred at 50° C. for 30 min., then stirred at 23° C. for 16h. The solution was poured into a saturated aqueous $NaHCO_3$ solution and extracted with ethyl acetate (1×50 mL) and ether (1×50 mL) sequentially. The combined organic extracts were washed with water, dried over $MgSO_4$, filtered and concentrated in-vacuo. The residue was purified by flash chromatography on Silica Gel 60 (230–400 mesh ASTM) with a 3:1 mixture of ethyl acetate:hexanes as element. This yielded 0.017 g (20%) of III as a pale yellow oil. PMR ($CDCl_3$) δ7.1 (m, 4H) 5.4 (m, 2H), 4.9 (hept, J=6.3 Hz, 1H), 4.2 (m,1H), 3.9 (m, 1H), 3.6 (m, 1H), 3.1–2.6 (bm, 5H), 2.3–1.9 (bm, 10H), 1.8–1.3 (bm, 10H), 1.1 (d, J=6.3 Hz, 6H), CMR ($CDCl_3$) δ173.46, 143.01, 142.85, 129.63, 129.33, 126.24, 126.91, 124.47, 124.34, 78.81, 75.26, 74.73, 67.66, 52.91, 52.00, 46.08, 42.59, 35.85, 35.39, 34.25, 34.04, 29.77, 26.90, 26.64, 24.93, 21.84.

The conformationally rigid prostaglandins of the present invention may be formulated in various pharmaceutical compositions for administering to humans and other mammals as a treatment of glaucoma or ocular hypertension. As used herein, the term "pharmaceutically effective amount" refers to that amount of a compound of the present invention which lowers IOP when administered to a patient, especially a mammal. The preferred route of administration is topical. The compounds of the present invention may be administered as solutions, suspensions, or emulsions (dispersions) in an ophthalmically acceptable vehicle. As used herein, the term "ophthalmically acceptable vehicle" refers to any substance or combination of substances which are effectively non-reactive with the compounds and suitable for administration to a patient. Stabilizers and/or solubilizers are not considered to be reactive substances. Preferred are aqueous vehicles suitable for topical application to the patient's eyes.

The compounds of the present invention are preferably administered topically. The dosage range is generally between about 0.01 and about 1000 micrograms per eye (μg/eye) and is preferably between about 0.1 and 100 μg/eye. In forming compositions for topical administration, the compounds of the present invention are generally formulated as between about 0.001 to about 1.0 percent by weight (wt %) solutions in water at a pH between about 4.5 to 8.0 and preferably between about 7.0 and 7.5. The compounds are preferably formulated as between about 0.0001 to about 0.1 wt % and, most preferably, between about 0.001 and about 0.02 wt %. While the precise regimen is left to the discretion of the clinician, it is recommended that the resulting solution be topically applied by placing one drop in each eye one or two times a day.

Other ingredients which may be desirable to use in the ophthalmic preparations of the present invention include preservatives, co-solvents and viscosity building agents.

Antimicrobial Preservatives

Ophthalmic products are typically packaged in multidose form. Preservatives are thus required to prevent microbial contamination during use. Suitable preservatives include: benzalkonium chloride, thimerosal, chlorobutanol, methyl paraben, propyl paraben, phenylethyl alcohol, edetate disodium, sorbic acid, Onamer M, or other agents known to those skilled in the art. Such preservatives are typically employed at a level between about 0.001% and about 1.0% by weight.

Co-Solvents

Prostaglandins, and particularly ester derivatives, typically have limited solubility in water and therefore may require a surfactant or other appropriate co-solvent in the composition. Such co-solvents include: Polysorbate 20, 60 and 80; Pluronic F-68, F-84 and P-103; cyclodextrin; CREMOPHORE® EL (polyoxyl 35 castor oil); or other agents known to those skilled in the art. Such co-solvents are typically employed at a level between about 0.01% and about 2% by weight.

Viscosity Agents

Viscosity greater than that of simple aqueous solutions may be desirable to increase ocular absorption of the active compound, to decrease variability in dispensing the formulations, to decrease physical separation of components of a suspension or emulsion of formulation and/or otherwise to improve the ophthalmic formulation. Such viscosity building agents include, for example, polyvinyl alcohol, polyvinyl pyrrolidone, methyl cellulose, hydroxy propyl methylcellulose, hydroxyethyl cellulose, carboxymethyl cellulose, hydroxy propyl cellulose, chondroitin sulfate and salts thereof, hyaluronic acid and salts thereof, combinations of the foregoing, and other agents known to those skilled in the art. Such agents are typically employed at a level between about 0.01% and about 2% by weight.

The following examples are representative pharmaceutical compositions of the invention for topical use in lowering of intraocular pressure.

EXAMPLE 2

The following formulations A–E are representative pharmaceutical compositions of the invention for topical use in lowering of intraocular pressure. Each of formulations A through E may be formulated in accordance with procedures known to those skilled in the art.

FORMULATION A

Ingredient	Amount (wt %)
Compound of formula II	0.003
Dextran 70	0.1
Hydroxypropyl methylcellulose	0.3
Sodium Chloride	0.77
Potassium chloride	0.12
Disodium EDTA (Edetate disodium)	0.05
Benzalkonium chloride	0.01
HCl and/or NaOH	pH 7.2–7.5
Purified water	q.s. to 100%

FORMULATION B

Ingredient	Amount (wt %)
Compound of formula III	0.001
Monobasic sodium phosphate	0.05
Dibasic sodium phosphate (anhydrous)	0.15
Sodium chloride	0.75
Disodium EDTA (Edetate disodium)	0.01
Benzalkonium chloride	0.02
Polysorbate 80	0.15
HCl and/or NaOH	pH 7.3–7.4
Purified water	q.s. to 100%

FORMULATION C

Ingredient	Amount (wt %)
Compound of formula III	0.001
Dextran 70	0.1
Hydroxypropyl methylcellulose	0.5
Monobasic sodium phosphate	0.05
Dibasic sodium phosphate (anhydrous)	0.15
Sodium chloride	0.75
Disodium EDTA (Edetate disodium)	0.05
Benzalkonium chloride	0.01
NaOH and/or HCl	pH 7.3–7.4
Purified water	q.s. to 100%

FORMULATION D

Ingredient	Amount (wt %)
Compound of formula II	0.003
Monobasic sodium phosphate	0.05
Dibasic sodium phosphate (anhydrous)	0.15
Sodium chloride	0.75
Disodium EDTA (Edetate disodium)	0.05
Benzalkonium chloride	0.01
HCl and/or NaOH	pH 7.3–7.4
Purified water	q.s. to 100%

FORMULATION E

Ingredient	Amount (wt/vol %)
Compound of formula II	0.01
Polyoxyl 35 castor oil	0.1

-continued

FORMULATION E

Ingredient	Amount (wt/vol %)
Tromethamine	0.12
Boric acid	0.3
Mannitol	4.6
Disodium EDTA (edetate disodium)	0.1
Benzalkonium Chloride Solution	0.01
HCl and/or NaOH	pH 7.3–7.4
Purified Water	q.s. to 100%

EXAMPLE 3

In the present study compounds II and III, and $PGF_{2\alpha}$ isopropyl ester ($PGF_{2\alpha}$iPr) were tested for ocular irritation in the New Zealand (NZA) rabbit. Prostaglandins were dosed as 1.0 microgram of compound per treatment in 30 μL of test formulation. Conjunctival hyperemia, swelling and discharge were evaluated using a system devised to grossly compare the irritation potential of prostaglandins in the NZA rabbit. Using the Hackett/McDonald scoring system (Hackett, R. B. and McDonald, T. O. "Eye Irritation" in *Dermatotoxicology,* 4th edition, Marzulli, F. N. and Maibach, H. I. editors, Hemisphere Publishing Corp., Washington D.C. (1991)), conjunctival hyperemia, conjunctival swelling, and ocular discharge were graded using a slit-lamp prior to compound instillation and 1, 2, 3, and 5 hours after topical ocular instillation of the test compounds. The percentage of eyes scoring +2 or greater for all time points was calculated for each parameter (conjunctival hyperemia, conjunctival swelling, and ocular discharge). To facilitate comparison, $PGF_{2\alpha}$iPr was administered at the same time as the test agent. The cumulative results are presented in Table 1.

TABLE 1

		% Incidence		
Compound	Number of Animals	Hyperemia	Conjunctival Swelling	Discharge
II	10	0	0	5
$PGF_{2\alpha}$ iPr	8	69	59	69
III	10	0	0	0
$PGF_{2\alpha}$ iPr	10	48	18	13

Discussion

It is evident from Table 1 that the conformationally rigid analogs of $PGF_{2\alpha}$ isopropyl ester, compounds II and III, produced a low incidence of ocular irritation in the rabbit compared to $PGF_{2\alpha}$ isopropyl ester, which caused a relatively high incidence of hyperemia, conjunctival swelling and discharge. This indicates that the structural modification present in compounds II and III attenuates the ocular side effects associated with the $PGF_{2\alpha}$ isopropyl ester.

EXAMPLE 4

In the study presented below, compounds II and III, and $PGF_{2\alpha}$ isopropyl ester ($PGF_{2\alpha}$ iPr) were tested for IOP-lowering effect in cynomologus monkey eyes. The right eyes of the cynomologus monkeys in this study were previously given laser trabeculoplasty to induce ocular hypertension in the lasered eye. Animals had been trained to sit in restraint chairs and conditioned to accept experimental procedures

without chemical restraint. IOP was determined with a pneumatonometer after light corneal anesthesia with dilute proparacaine. The test protocol included a five-dose b.i.d. treatment regimen because of the typical delayed response to prostaglandins. The test formulations were administered to the lasered right eyes, and the normal left eyes remained untreated for compounds II and III, or to both eyes for $PGF_{2\alpha}$ isopropyl ester ($PGF_{2\alpha}$iPr). Baseline IOP values were determined prior to treatment with the test formulation, and IOP was determined 16 hours after the fourth dose for all compounds, 2, 4, and 6 hours after the fifth dose for compounds II and III, and 1, 3 and 7 hours after the fifth dose for $PGF_{2\alpha}$iPr. Results are presented in Table 2 as the mean percent reduction of IOP from baseline +/- SEM. Prostaglandins were dosed as 1.0 microgram of compound per treatment in 30 μL of test formulation.

TABLE 2

Compound	Number of Animals	Baseline IOP (mm Hg)	Percent IOP Reduction +/- SEM (Hours after Last Dose/Dose #) 16/4	1/5	2/5	3/5	4/5	6/5	7/5
II	9	37.9	20.9 +/- 4.1		16.3 +/- 5.1		24.2 +/- 5.8	27.4 +/- 5.9	
III	9	43.7	11.4 +/- 4.0		20.3 +/- 4.6		24 +/- 4.5	15 +/- 5.0	
$PGF_{2\alpha}$ iPr	4	34.8	5.8 +/- 4.0	27.6 +/- 14.4		38 +/- 11.7			25.6 +/- 14.4

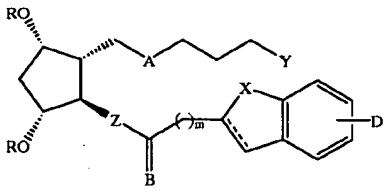
Discussion

Table 2 shows that the conformationally rigid analogs of $PGF_{2\alpha}$ isopropyl ester, compounds II and III, produce a significant degree of IOP reduction for the time period tested. Thus, the conformationally rigid compounds II and III, with their low incidence of side effects (Example 3), exhibit a significantly improved therapeutic profile over $PGF_{2\alpha}$ isopropyl ester.

The invention has been described by reference to certain preferred embodiments however, it should be understood that it may be embodied in other specific forms or variations thereof without departing from its spirit or essential characteristics. The embodiments described above are therefore considered to be illustrative in all respects and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description.

What is claimed is:

1. A method of treating glaucoma and ocular hypertension which comprises topically administering to the affected eye a therapeutically effective amount of a compound of formula (I)



(I)

wherein:

Y=C(O)NR_1R_2, CH_2OR_3, $CH_2NR_1R_2$, CO_2R_1, or CO_2M, where M is a cationic salt moiety;

R_1, R_2(same or different)=H, C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl;

R, R_3(same or different)=C(O)R_4 or H, where R_4=C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl;

A=CH_2CH_2, cis or trans CH=CH, or C≡C;

Z=CH_2CH_2 or trans CH=CH;

X=[O, S(O)$_n$,](CH$_2$)$_m$, where n=0, 1, or 2;

B=H and OH in either configuration or double bonded O;

D=R_1, OR_1, halogen, S(O)$_n$$R_4$, NO_2, NR_1R_2, H, or CF_3, where n=0, 1, or 2, and R_1, R_2 and R_4 are as defined above; and

m=0, 1,or 2.

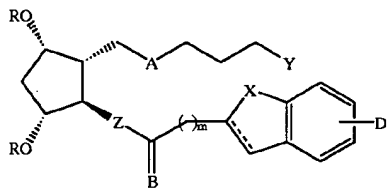
2. The method of claim 1, wherein: Y=CO_2R_1, where R_1=H, C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl; R=C(O)R_4 or H, where R_4=C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl; A=CH_2CH_2, cis or trans CH=CH, or C≡C; Z=CH_2CH_2 or trans CH=CH; X=[O or] CH_2; B=H and OH in either configuration; and D=R_1, OR_1, halogen, or H, where R_1 is as defined above.

3. The method of claim 2, wherein: Y=CO_2R_1, where R_1=C_3 alkyl in the isopropyl form; R=H; A=CH_2CH_2 or cis CH=CH; Z=CH_2CH_2 or trans CH=CH; X=CH_2; B—β=H and α—OH; and D=H.

4. The method of claim 1, wherein between about 0.01 and about 1000 micrograms of the compound is administered.

5. The method of claim 4, wherein between about 0.1 and about 100 micrograms of the compound is administered.

6. A topical ophthalmic composition for the treatment of glaucoma and ocular hypertension, said composition comprising an ophthalmically acceptable vehicle and a therapeutically effective amount of a compound of formula (I):



(I)

wherein:

Y=C(O)NR_1R_2, CH_2OR_3, $CH_2NR_1R_2$, CO_2R_1, or CO_2M, where M is a cationic salt moiety;

R_1, R_2(same or different)=H, C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl;

R, R_3(same or different)=C(O)R_4 or H, where R_4=C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl;

A=CH_2CH_2, cis or trans CH=CH, or C≡C;

Z=CH_2CH_2, or trans CH=CH;

X=[O,.S(O)$_n$, or](CH$_2$)$_m$, where n=0, 1 or 2;

B=H and OH in either configuration or double bonded O;

D=R_1, OR_1, halogen, S(O)$_n$$R_4$, NO_2, NR_1R_2, H, or CF_3, where n=0, 1, or 2, and R_1, R_2 and R_4 are as defined above; and

m=0, 1, or 2.

7. The composition of claim 6, wherein: Y=CO_2R_1, where R_1=H, C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl;

R=C(O)R_4 or H, where R_4=C_1–C_6 alkyl or alkenyl, or C_3–C_6 cycloalkyl; A=CH_2CH_2, cis or trans CH=CH, or C≡C; Z=CH_2CH_2, or trans CH=CH; [X=O] X=$(CH_2)_n$, where n=1 or 2; B=H and OH in either configuration; and D=R_1, OR_1, halogen, or H, where R_1 is as defined above.

8. The composition of claim **7**, wherein: Y=CO_2R_1, where R_1=C_3 alkyl in the isopropyl form; R=H; A=CH_2CH_2 or cis CH=CH; Z=CH_2CH_2 or trans CH=CH; X=[O or] CH_2; β—H and α—OH; and D=H.

9. The composition of claim **8**, wherein Z=CH_2CH_2.

10. The composition of claim **6**, wherein the compound is present at a concentration between about 0.0001 and about 5 percent by weight.

11. The composition of claim **9**, wherein the compound is present at a concentration between about 0.001 and about 1 percent by weight.

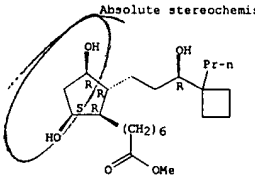
* * * * *

L7 ANSWER 5 OF 7 USPATFULL
ACCESSION NUMBER: 78:54668 USPATFULL
TITLE: 15-Cyclobutyl-prostaglandins
INVENTOR(S): Kurono, Masayasu, Mishimagun, Japan
Nakai, Hisao, Takatsuki, Japan
Muryobayashi, Takashi, Takatsuki, Japan
PATENT ASSIGNEE(S): Ono Pharmaceutical Company, Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4117119		19780926
APPLICATION INFO.:	US 1977-794580		19770506 (5)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1975-557437, filed on 11 Mar 1975, now patented, Pat. No. US 4045468
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Gerstl, Robert
LEGAL REPRESENTATIVE: Graddis, Albert H., Chow, Frank S.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 2192
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Prostaglandin analogues of the formula: ##STR1## wherein A represents a grouping of the formula: ##STR2## X represents trans-vinylene or ethylene and Y represents cis-vinylene or ethylene, R represents hydrogen or alkyl of 1 through 12 carbon atoms, R.sup.1, R.sup.2 and R.sup.3 represent hydrogen, or alkyl of 1 through 12 carbon atoms or an aryl group, with the proviso that at least one of the symbols R.sup.1, R.sup.2 and R.sup.3 represents an alkyl or aryl group, are new compounds possessing useful pharmacological properties; they are especially useful for the treatment of gastric ulceration.
IT **58148-70-2P**
(prepn. of)
RN 58148-70-2 USPATFULL
CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)propyl]-, methyl ester, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



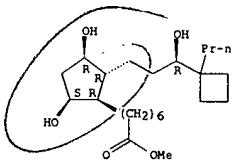
L7 ANSWER 6 OF 7 USPATFULL
ACCESSION NUMBER: 77:46570 USPATFULL
TITLE: 16-Cyclobutyl-prostaglandins
INVENTOR(S): Kurono, Masayasu, Osaka, Japan
Nakai, Hisao, Ibaragi, Japan
Muryobayashi, Takashi, Ibaragi, Japan
PATENT ASSIGNEE(S): Ono Pharmaceutical Company, Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4045468		19770830
APPLICATION INFO.:	US 1975-557437		19750311 (5)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1974-28544	19740314

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Gerstl, Robert
LEGAL REPRESENTATIVE: Graddis, Albert H., Chow, Frank S.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 2185
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Prostaglandin analogues of the formula: ##STR1## wherein A represents a grouping of the formula: ##STR2## X represents trans-vinylene or ethylene and Y represents cis-vinylene or ethylene, R represents hydrogen or alkyl of 1 through 12 carbon atoms, R.sup.1, R.sup.2 and R.sup.3 represent hydrogen, or alkyl of 1 through 12 carbon atoms or an aryl group, with the proviso that at least one of the symbols R.sup.1, R.sup.2 and R.sup.3 represents an alkyl or aryl group, are new compounds possessing useful pharmacological properties; they are especially useful for the treatment of gastric ulceration.
IT **58148-70-2P**
(prepn. of)
RN 58148-70-2 USPATFULL
CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)propyl]-, methyl ester, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 7 OF 7 USPATFULL
ACCESSION NUMBER: 77:3792 USPATFULL
TITLE: Novel prostanoic acid derivatives and process for the preparation thereof
INVENTOR(S): Skuballa, Werner, Berlin, Germany, Federal Republic of
Raduchel, Bernd, Berlin, Germany, Federal Republic of
Vorbruggen, Helmut, Berlin, Germany, Federal Republic of
Elger, Walter, Berlin, Germany, Federal Republic of
Losert, Wolfgang, Berlin, Germany, Federal Republic of
Loge, Olaf, Berlin, Germany, Federal Republic of
PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Berlin & Bergkamen, Germany, Federal Republic of (non-U.S. corporation)

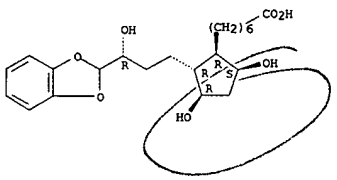
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4004020		19770118
APPLICATION INFO.:	US 1974-534483		19741219 (5)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1973-2365101	19731221

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Demers, Arthur P.
LEGAL REPRESENTATIVE: Millen, Raptes & White
NUMBER OF CLAIMS: 29
EXEMPLARY CLAIM: 1
LINE COUNT: 1601
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Prostaglandins of the formula ##STR1## wherein R.sub.1 is hydroxymethyl, carboxy, aryloxycarbonyl, alkoxycarbonyl of 1-8 carbon atoms in the alkoxy group, or the group -COO-CH.sub.2 -U-V wherein U is a direct C-C bond, carbonyl or carbonyloxy and V is phenyl substituted by phenyl, alkoxy of 1-2 carbon atoms or halogen; R.sub.2 is hydroxy and R.sub.3 is a hydrogen atom or R.sub.2 and R.sub.3 collectively are an oxygen atom; A is -CH.sub.2 -CH.sub.2 or trans-CH=CH; B is -CH.sub.2 -CH.sub.2 or CH=CH; one of R.sub.4 and R.sub.5 is hydroxy and the other is a hydrogen atom; R.sub.6 and R.sub.7 each are alkyl of 1-10 carbon atoms or collectively are alkylene of up to 7 carbon atoms and with 2-3 carbon atoms in the chain, phenylene or naphthylene; R.sub.8 is a hydrogen atom or alkyl of 1-5 carbon atoms; ##STR2## when R.sub.2 is hydroxy and R.sub.3 is a hydrogen atom or is ##STR3## or -CH=CH- when R.sub.2 and R.sub.3 collectively are an oxygen atom; or, when R.sub.1 is carboxy, a physiologically acceptable salt thereof with a base, possess the activity of the corresponding natural prostaglandins, including a luteolytic effect, and are useful in triggering abortions and syncronizing the conception cycle of mammals.
IT **57985-32-7P**
(prepn. of)
RN 57985-32-7 USPATFULL
CN Cyclopentaneheptanoic acid, 2-[3-(1,3-benzodioxol-2-yl)-3-hydroxypropyl]-3,5-dihydroxy-, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L7 ANSWER 7 OF 7 USPATFULL (Continued)



=> d ibib ab hitstr 1-3

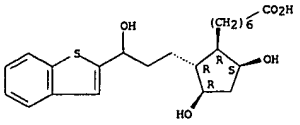
L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:747565 CAPLUS
DOCUMENT NUMBER: 135:293694
TITLE: Compositions for treating hair loss with non-naturally occurring prostaglandins
INVENTOR(S): Delong, Mitchell Anthony; Mciver, John Mcmillan; Youngquist, Robert Scott
PATENT ASSIGNEE(S): The Procter + Gamble Company, USA
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074315	A2	20011011	WO 2001-US10370	20010330
WO 2001074315	A3	20020221		
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002172693	A1	20021121	US 2001-774557	20010131

PRIORITY APPLN. INFO.: US 2000-193645P P 20000331
OTHER SOURCE(S): MARPAT 135:293694
AB A method for treating hair loss in mammals involves compns. contg. prostaglandin F analogs. The compns. can be applied topically to the skin. The compns. can arrest hair loss, reverse hair loss, and promote hair growth. Thus, fluprostenol Me ester at 0.01 and 0.1% promoted hair growth. A topical compn. contained the above prostaglandin 0.019, EtOH 59.988, propylene glycol 19.996, and di-Me isosorbide 19.996%.
IT **290823-50-6 365219-89-2**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); **USES (Uses)**
(compns. for treating hair loss with non-naturally occurring prostaglandins)
RN 290823-50-6 CAPLUS
CN Cyclopentaneheptanoic acid, 2-(3-benzo[b]thien-2-yl-3-hydroxypropyl)-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

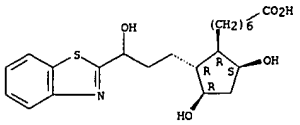
Absolute stereochemistry.

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 365219-89-2 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[3-(2-benzothiazolyl)-3-hydroxypropyl]-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



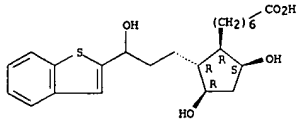
L8 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:628115 CAPLUS
DOCUMENT NUMBER: 133:222498
TITLE: Preparation of prostaglandin F analogs for treatment of bone disorders and glaucoma
INVENTOR(S): Delong, Mitchell Anthony; Soper, David Lindsey; Wos, John August; De, Biswanath
PATENT ASSIGNEE(S): Procter & Gamble Co., USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000051980	A1	20000908	WO 2000-US5301	20000229
W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1159266	A1	20011205	EP 2000-917686	20000229
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000008776	A	20011218	BR 2000-8776	20000229
JP 2002538139	T2	20021112	JP 2000-602208	20000229
NO 2001004241	A	20011105	NO 2001-4241	20010831
US 2002037913	A1	20020328	US 2001-946021	20010904

PRIORITY APPLN. INFO.: US 1999-122924P P 19990305
WO 2000-US5301 W 20000229
OTHER SOURCE(S): MARPAT 133:222498
AB The prostaglandin F analogs I (R = CO2H, C(O)NHOH, CO2R3, CH2OH, S(O)2R3, C(O)NHR3, C(O)NHS(O)2R4, or tetrazole where R3 = R4 = alkyl, heteroalkyl, carbocyclic or heterocyclic aliph. ring, monocyclic arom. or heteroarom. ring; R2 = H,lower alkyl; X = C.tplbond.C or covalent bond; Z = arom. or heteroarom. ring provided that when Z is a heteroarom. ring and X is a covalent bond then Z is attached to C15 via a carbon atom) and all stereoisomers, or a pharmaceutically acceptable salt or biohydrolyzable amide, ester or imide of these analogs were prepd. Thus II (no data) was prepd. in a multistep sequence starting from Me 7-{3(R)-hydroxy-5-oxo-1-cyclopenten-1-yl}heptanoate. These compds. are useful in the treatment and prevention of bone disorders with the preferred dosage for systemic administration of about 1 to 50 .mu.g/kg body wt. per day. Pharmaceutical compns. contg. I are described.
IT **290823-50-6P 291303-31-6P 291303-33-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(prepn. of prostaglandin F analogs for treatment of bone disorders and glaucoma)
RN 290823-50-6 CAPLUS
CN Cyclopentaneheptanoic acid, 2-(3-benzo[b]thien-2-yl-3-hydroxypropyl)-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

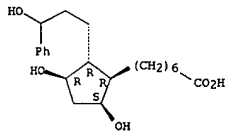
Absolute stereochemistry.

L8 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS (Continued)



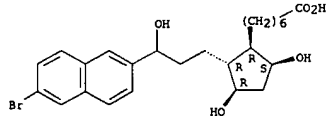
RN 291303-31-6 CAPLUS
CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-(3-hydroxy-3-phenylpropyl)-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 291303-33-8 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[3-(6-bromo-2-naphthalenyl)-3-hydroxypropyl]-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:628112 CAPLUS
DOCUMENT NUMBER: 133:222495
TITLE: preparation of aldehyde intermediates useful in making prostaglandin derivatives
INVENTOR(S): Delong, Mitchell Anthony; Soper, David Lindsey; Wos, John August; De, Biswanath
PATENT ASSIGNEE(S): Procter and Gamble Company, USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000051977	A1	20000908	WO 2000-US5201	20000229

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-123010P P 19990305
OTHER SOURCE(S): MARPAT 133:222495

AB Surprisingly the disadvantages of the lengthy procedures previously known to synthesize 13,14-dihydro prostaglandin A, D, E, and F derivs. can be overcome using a novel C1, C9, and C11-protected 7-(5-(3-oxopropyl)-2,4-dihydroxy-cyclopentyl) heptanoic acid intermediate (I) (R = alkyl, carbocyclic/heterocyclic aliph. ring, arom., heteroarom. ring; Q1, Q2 = same or different non-electrophilic alc. protecting group) , which can be synthesized from com. available Me 7-[3-(R)-hydroxy-5-oxo-1-cyclopent-1-yl] heptanoate. I can be coupled with carbon nucleophiles Y-[C(R3)(R3)]n-Z (Y = -C≡C-, -CH=C=CH-, etc; R3 = H, alkyl, alkoxyl, haloalkyl, carbocyclic/heterocyclic aliph. ring etc.; n is an integer from 0 - 5 etc,; Z = H, R etc.) in the presence of a base to provide 13,14-dihydro prostaglandin A, D, E, and F derivs (II) (R1 = CO2H, C(O)NHOH, CO2R, S(O)2R etc).

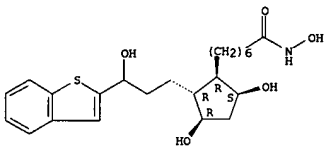
IT **290823-49-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); **USES (Uses)**
(process for the prepn. of aldehyde intermediates useful in making prostaglandin derivs.)

RN 290823-49-3 CAPLUS
CN Cyclopentaneheptanoic acid, 2-(3-benzo[b]thien-2-yl-3-hydroxypropyl)-3,5-dihydroxy-, methyl ester, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

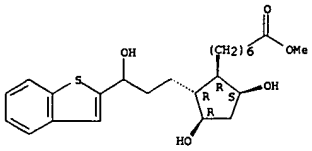
L8 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS (Continued)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

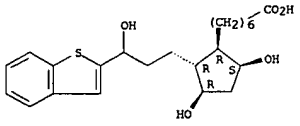
L8 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS (Continued)



IT **290823-50-6P 290823-51-7P 290823-52-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(process for the prepn. of aldehyde intermediates useful in making prostaglandin derivs.)

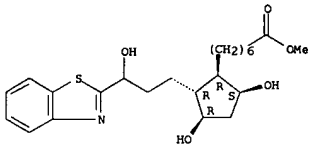
RN 290823-50-6 CAPLUS
CN Cyclopentaneheptanoic acid, 2-(3-benzo[b]thien-2-yl-3-hydroxypropyl)-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 290823-51-7 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[3-(2-benzothiazolyl)-3-hydroxypropyl]-3,5-dihydroxy-, methyl ester, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 290823-52-8 CAPLUS
CN Cyclopentaneheptanamide, 2-(3-benzo[b]thien-2-yl-3-hydroxypropyl)-N,3,5-trihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

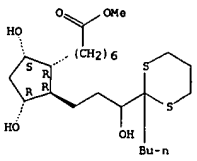
=> d ibib ab hitstr 1-6

L10 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:43262 CAPLUS
DOCUMENT NUMBER: 86:43262
TITLE: Prostaglandin analogs
INVENTOR(S): Hayashi, Masaki; Kori, Seiji; Miyake, Hajimu
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: Ger. Offen., 96 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2605584	A1	19760826	DE 1976-2605584	19760212
FR 2300557	A1	19760910	FR 1976-3772	19760211
FR 2300557	B1	19791005		
US 4128720	A	19781205	US 1976-657125	19760211
DK 7600568	A	19760815	DK 1976-568	19760212
NL 7601455	A	19760817	NL 1976-1455	19760212
ZA 7600830	A	19770126	ZA 1976-830	19760212
AU 7611069	A1	19770818	AU 1976-11069	19760212
BE 838582	A1	19760813	BE 1976-164338	19760213
JP 51110541	A2	19760930	JP 1976-14074	19760213
PRIORITY APPLN. INFO.:			GB 1975-6385	19750214

AB Gem-bis(alkylthio)tetranoprostaglandins, e.g., I [R = H, R1 = Ph, R2 = Me, R1R2 = (CH2)3] and -prostaglandins, e.g., I (R = Bu), were prepd. from LiCR(SR1)(SR2) and aldehydes, e.g., II. II was prepd. by std. methods from III.
IT **61408-29-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 61408-29-5 CAPLUS
CN Prostan-1-oic acid, 9,11,15-trihydroxy-16,16-[1,3-propanediylbis(thio)]-, methyl ester, (9.alpha.,11.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

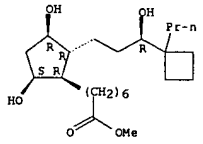


L10 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1976:58751 CAPLUS
DOCUMENT NUMBER: 84:58751
TITLE: 15-Cyclobutyl prostaglandin analogs
INVENTOR(S): Kurono, Masayasu; Nakai, Hisao; Muryobayashi, Takashi
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: Ger. Offen., 97 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2510818	A1	19750918	DE 1975-2510818	19750312
DE 2510818	C2	19831117		
JP 50123647	A2	19750929	JP 1974-28544	19740314
JP 58023393	B4	19830514		
US 4045468	A	19770830	US 1975-557437	19750311
FR 2263756	A1	19751010	FR 1975-7898	19750313
FR 2263756	B1	19790209		
GB 1484210	A	19770901	GB 1975-10560	19750313
US 4117119	A	19780926	US 1977-794580	19770506
PRIORITY APPLN. INFO.:			JP 1974-28544	19740314
			US 1975-557437	19750311

AB Approx. 70 16,16-propanoprostaglandin analogs and intermediates were prepd. by the Wittig reaction of (MeO)2P(O)CH2COR (R = 1-C3-6-alkylcyclobutyl) with cyclopentanecarboxaldehyde or 2-cyclopentene-1-carboxaldehyde derivs. The gastric juice secretion-inhibiting and bronchodilator properties of the products made them useful in the treatment of stomach ulcers and asthma.
IT **58148-70-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 58148-70-2 CAPLUS
CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)propyl]-, methyl ester, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

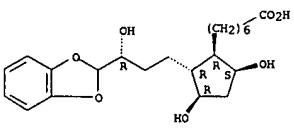


L10 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1976:58747 CAPLUS
DOCUMENT NUMBER: 84:58747
TITLE: Prostanoic acid derivatives
INVENTOR(S): Skuballa, Werner; Raduechel, Bernd; Vorbrueggen, Helmut; Elger, Walter; Losert, Wolfgang; Loge, Olaf
PATENT ASSIGNEE(S): Schering A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 119 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2365101	A1	19750710	DE 1973-2365101	19731221
AU 7476586	A1	19760624	AU 1974-76586	19741218
SE 7416037	A	19750623	SE 1974-16037	19741219
DK 7406677	A	19750825	DK 1974-6677	19741219
US 4004020	A	19770118	US 1974-534483	19741219
BE 823692	A1	19750620	BE 1974-151796	19741220
JP 50095269	A2	19750729	JP 1974-147506	19741221
NL 7416806	A	19750624	NL 1974-16806	19741223
FR 2255062	A1	19750718	FR 1974-42585	19741223
PRIORITY APPLN. INFO.:			DE 1973-2365101	19731221

AB Prostaglandin derivs. (I, II, and III: R = CO2H or deriv. thereof, e.g., alkyl, Ph, or substituted phenyl ester; CH2OH or related ether; A = CH2CH2, trans-CH:CH; B = CH2CH2, cis-CH:CH; R1 .noteq. R2 = OH, H; R3 = H, C1-5 alkyl; R4, R5 = C1-10 alkyl, Ph, naphthyl, or substituted phenyl or naphthyl; or R4R5 = optionally substituted CH2CH2, CH2CH2CH2, o-phenylene, 2,3-naphthalenediyl, 1,8-naphthalenediyl), with physiol. activities similar to natural prostaglandins, were prepd. via schemes based on Wittig reactions of the lactone IV following standard procedures and reactions, e.g., protective-group chem., hydride redns., isomer sepns., etc.
IT **57985-32-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 57985-32-7 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[3-(1,3-benzodioxol-2-yl)-3-hydroxypropyl]-3,5-dihydroxy-, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d ibib ab fqhit 1-30

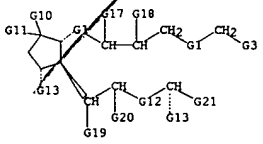
L12 ANSWER 1 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 137:41778 MARPAT
TITLE: 3,7 or 3 and 7 thia or oxa prostanoic acid derivatives as agents for lowering intraocular pressure, and preparation thereof
INVENTOR(S): Burk, Robert M.; Holoboski, Mark; Posner, Mari F.
PATENT ASSIGNEE(S): Allergan Sales, Inc., USA
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6410591	B1	20020625	US 2001-851296	20010508
WO 2002089813	A2	20021114	WO 2002-US14331	20020506

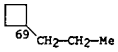
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-851296 20010508
AB The invention provides a method of treating ocular hypertension or glaucoma which comprises administering to an animal having ocular hypertension or glaucoma a therapeutically effective amt. of a 3, 7 or 3 and 7 thia or oxa prostanoic acid deriv. (prepn. included).

MSTR 1



G1 = CH2
G11 = OH
G13 = OH
G21 = 69



L12 ANSWER 1 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

MPL: claim 1

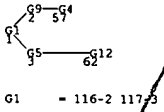
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 136:299713 MARPAT
TITLE: Compositions for controlling intraocular pressure during ophthalmic surgery
INVENTOR(S): Ueno, Takashi
PATENT ASSIGNEE(S): Sucampo AG, Switz.
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

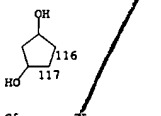
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002104970	A2	20020410	JP 2001-250329	20010821
US 6414021	B1	20020702	US 2000-645361	20000825

PRIORITY APPLN. INFO.: US 2000-645361 20000825
AB The invention relates to a compn. suitable for use in a perfusion soln. or eye-washing soln. for decreasing intraocular pressure during ophthalmic surgery, e.g. laser surgery, wherein the compn. contains a prostaglandin deriv. as an active ingredient. The intraocular pressure-lowering effect of 13,14-dihydro-15-keto-17-phenyl-18,19,20-trinor-PGF2.alpha. in monkey was examd.

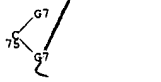
MSTR 1



G1 = 116-2 117-3



G5 = 75



G9 = Ak<EC (1-14) C, BD (0-) D (0-) T> (SO (1-) G10)
G12 = Ak<EC (1-14) C, BD (0-) D (0-) T> (SO (1-) G13)
G13 = OH / lowercycloalkyl
MPL: claim 1
NTE: substitution is restricted

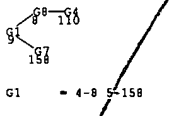
L12 ANSWER 3 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 136:178021 MARPAT
TITLE: Treatment of ocular hypertension and glaucoma with prostaglandin related compounds
INVENTOR(S): Ueno, Ryuji
PATENT ASSIGNEE(S): R-Tech Ueno, Ltd., USA
SOURCE: U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 817,046.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002022644	A1	20020221	US 2001-900021	20010709
US 6458836	B2	20021001		
US 2001034355	A1	20011025	US 2000-730830	20001207
US 2001056104	A1	20011227	US 2001-817046	20010327

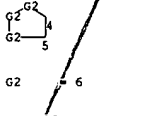
PRIORITY APPLN. INFO.: US 2000-730830 20001207
US 2000-527573 20000316
US 2000-730830 20001207
US 2001-817046 20010327

AB Disclosed is treatment of ocular hypertension and glaucoma by long-term therapy with a prostaglandin related compd. for eliminating or reducing potential iridic pigmentation. Compn. useful for the treatment, and use of the prostaglandin related compd. for producing the compn. are also disclosed.

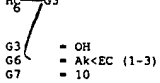
MSTR 2



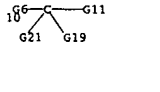
G1 = 4-8 5-158



G2 = 6



G3 = OH
G6 = Ak<EC (1-3) C, BD (0-1) D (0-1) T, DC (0) M3>
G7 = 10



L12 ANSWER 3 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
G8 = Ak<EC (1-) C, BD (0-) D (0-) T> (SO G9)
G11 = cycloalkyl<(3-6)>
G21 = OH
MPL: claim 15
NTE: substitution is restricted
NTE: or functional derivatives or salts

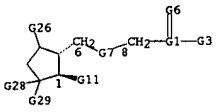
L12 ANSWER 4 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 135:293970 MARPAT
TITLE: Cosmetic and pharmaceutical compositions and methods using 2-decarboxy-2-phosphinico prostaglandin derivatives
INVENTOR(S): Delong, Mitchell Anthony; Mciver, John Mcmillan; Youngquist, Robert Scott
PATENT ASSIGNEE(S): The Procter + Gamble Company, USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074314	A2	20011011	WO 2001-US10369	20010330
WO 2001074314	A3	20020221		
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002013294	A1	20020131	US 2001-774558	20010131

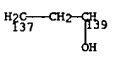
PRIORITY APPLN. INFO.: US 2000-193845P 20000331
AB Compns. contg. 2-decarboxy-2-phosphinico prostaglandin derivs. is described for treating hair loss in mammals. The compns. can be applied topically to the skin to arrest hair loss, reverse hair loss, and promote hair growth. Compns. contg. 2-decarboxy-2-phosphinico prostaglandin derivs. can also be used to lower intraocular pressure and treat bone disorders. A compn. comprises a prostaglandin analog, an activity enhancer, such as a hair growth stimulant and a penetration enhancer, and a sufficient amt. of a component selected from the group consisting of emollients, propellants, solvents, humectants, thickeners, powders, fragrances, water, alcs., aloe vera gel, allantoin, glycerin, vitamin A and E oils, mineral oil, propylene glycol, polypropylene glycol-2 myristyl propionate, di-Me isosorbide, and combinations thereof. For example, a compn. for topical administration was prepd. comprising (by wt.) a prostaglandin (IC50 = 114 nM) 1.14%, ethanol 59.32%, propylene glycol 19.77%, and di-Me isosorbide 19.77%. Also, a shampoo was made contg. ammonium lauryl sulfate 11.5%, ammonium laureth sulfate 4%, cocamide MEA 2%, ethylene glycol distearate 2%, cetyl alc. 2%, stearyl alc. 1.2%, glycerin 1%, sodium chloride 0.1%, sucrose polyesters of cottonate fatty acid 3%, sucrose polyesters of behenate fatty acid 2%, lauryl di-Me amine oxide 1.5%, DMDM hydantoin 0.15%, prostaglandin (IC = 150 nM) 0.15%, phenoxyethanol 0.5%, fragrance 0.5%, and water up to 100%. A tablet formulation was also prepd. contg. a prostaglandin 5 mg, microcryst. cellulose 100 mg, sodium starch glycolate 30 mg, and magnesium stearate 3 mg per tablet. When administered orally once daily, the above compn. substantially increases bone vol. in a patient suffering from osteoporosis.

L12 ANSWER 4 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

MSTR 1



G7 = Ak<(1-18)> (SO)
G14 = 137-1 139-14



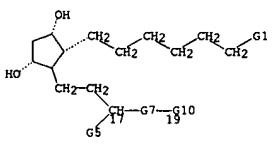
G25 = Cb<EC (4-12) C, AR (0), RC (1-2)> (SO)
G26 = OH
G29 = OH
MPL: claim 2
NTE: optional heteroatom interruptions in Ak groups also claimed

L12 ANSWER 5 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 135:293694 MARPAT
TITLE: Compositions for treating hair loss with non-naturally occurring prostaglandins
INVENTOR(S): Delong, Mitchell Anthony; Mciver, John Mcmillan; Youngquist, Robert Scott
PATENT ASSIGNEE(S): The Procter + Gamble Company, USA
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074315	A2	20011011	WO 2001-US10370	20010330
WO 2001074315	A3	20020221		
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002172693	A1	20021121	US 2001-774557	20010131

PRIORITY APPLN. INFO.: US 2000-193645P 20000331
AB A method for treating hair loss in mammals involves compns. contg. prostaglandin F analogs. The compns. can be applied topically to the skin. The compns. can arrest hair loss, reverse hair loss, and promote hair growth. Thus, fluprostenol Me ester at 0.01 and 0.1% promoted hair growth. A topical compn. contained the above prostaglandin 0.019, EtOH 59.988, propylene glycol 19.996, and di-Me isosorbide 19.996%.

MSTR 1



G5 = OH
G10 = Cb<EC (4-10) C, AR (0), BD (0-) D (0-) T> (SO)
MPL: claim 1
NTE: and pharmaceutically acceptable salts and hydrates, or biohydrolyzable amides, esters, and imides
STE: and optical isomers, diastereomers, and enantiomers

L12 ANSWER 6 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 135:237108 MARPAT
TITLE: Treatment of ocular hypertension and glaucoma with prostaglandin related compounds
INVENTOR(S): Ueno, Ryuji
PATENT ASSIGNEE(S): R-Tech Ueno, Ltd., Japan
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001068072	A2	20010920	WO 2001-JP2035	20010315
WO 2001068072	A3	20020606		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2001034355	A1	20011025	US 2000-730830	20001207
PRIORITY APPLN. INFO.:			US 2000-527573	20000316
			US 2000-730830	20001207

AB Disclosed is treatment of ocular hypertension and glaucoma by long-term therapy with a prostaglandin related compd. for eliminating or reducing potential iridic pigmentation. Compn. useful for the treatment, and use of the prostaglandin related compd. for producing the compn. are also disclosed.

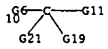
MSTR 2

G1 = 4-6 5-158

G2 = 6

L12 ANSWER 6 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

G3 = OH
G6 = Ak<EC (1-3) C, BD (0-1) D (0-1) T, DC (0) M3>
G7 = 10



G8 = Ak<EC (1-) C, BD (0-) D (0-) T> (SO G9)
G11 = cycloalkyl<(3-6)>
G21 = OH
MPL: claim 11
NTE: substitution is restricted
NTE: or functional derivatives or salts

L12 ANSWER 7 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 134:326177 MARPAT
TITLE: Preparation of cyclopentanecarboxylates and analogs as neuraminidase inhibitors
INVENTOR(S): Maring, Clarence J.; Giranda, Vincent L.; Kempf, Dale J.; Stoll, Vincent S.; Sun, Minghua; Zhao, Chen; Gu, Yu Gui; Wang, Gary T.; Krueger, Allan C.; Chen, Yuanwei; Degoey, David A.; Grampovnik, David J.; Kati, Warren M.; Kennedy, April L.; Lin, Zhen; Madigan, Donald L.; Muchmore, Steven W.; Sham, Hing L.; Stewart, Kent D.; Wang, Sheldon; Yeung, Ming C.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 338 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

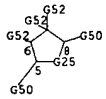
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028979	A2	20010426	WO 2000-US27938	20001010
WO 2001028979	A3	20011227		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 1999-422093	19991019

AB Title compds. (I) or (II) [wherein R1 = (CH2)CO2H, (CH2)SO3H, (CH2)SO2H, (CH2)PO3H2, (CH2)PO2H, tetrazolyl(methyl), (CH2)CONHSO2R11, or (CH2)SO2N(TR11)R12; T = a bond, CO, CO2, COS, CSO, CS2, CONR12 or CSNR12; R11 = alkyl, alkenyl, cycloalkyl(alkyl), cycloalkenyl(alkyl), cycloalkylalkenyl, cycloalkenylalkenyl, heterocyclyl(alkyl), or heterocyclylalkenyl; R12 = independently H, alkyl, alkenyl cycloalkyl(alkyl), cycloalkenyl(alkyl), cycloalkylalkenyl, cycloalkenylalkenyl, heterocyclo(alkyl), or heterocyclylalkenyl; X = CONR, NRCO, CSNR, NRCS, NRSO2, or SO2NR; R = H, alkyl, or cyclopropyl; R2 = H, (cyclo)alkyl, (cyclo)alkenyl, haloalkyl, or haloalkenyl; or R2X = 5-membered heterocyclyl; Z1 = O, S, or (un)substituted CH2; R3 and R4 = independently H, cycloalkyl, cycloalkenyl, heterocyclyl, aryl, or (un)substituted ketones, acids, amides, alcs., thiols, etc.; or R3 and R4 taken together with the C to which they are attached form a carbocyclic or heterocyclic ring; R5 = H, (un)substituted Me, OH, acyl, imino, NH2, etc.; R6 and R7 = independently H, alkyl, alkenyl, cycloalkyl(alkyl), cycloalkenyl(alkyl), cyloalkylalkenyl, cycloalkenylalkenyl, aryl(alkyl), arylalkenyl, heterocyclyl(alkyl), heterocyclylalkenyl, or (un)substituted OH or NH2; R10 = H, (cyclo)alkyl, (cyclo)alkenyl, or F] were prepd. as neuraminidase inhibitors for the treatment of diseases caused by microorganisms having a neuraminidase, esp. influenza neuraminidase. For example, III was synthesized in a multi-step sequence involving oxidative ring opening of (.+-.)-(2R,3R)-2-(N-methyl-N-t-butoxycarbonylamino)-3-[(N-benzyl-N-benzyloxycarbonylamino)methyl]bicyclo[2.2.1]hept-5-ene (prepn. given) to form the di-Me cyclopentanedicarboxylate (50%), N-deprotection to give the aminomethyl deriv. (100%), N-acylation (58%), deesterification (75%), and reaction with MeOH to give the desired monomethyl ester (30%). I and II inhibited influenza A and influenza B neuraminidase with Ki values between 24 .mu.M and 0.77 .mu.M.

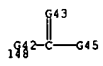
L12 ANSWER 7 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

MSTR 1

G1 = 5-1 6-4 8-3



G25 = CH2 (SO)
G28 = 148



G42 = alkylene<(1-4)>
G43 = O
G45 = azetidino
G50 = 188

G52 = alkyl<(1-6)>
DER: or pharmaceutically acceptable salts, esters or prodrugs
MPL: claim 1
NTE: additional substitution and ring formation also claimed
NTE: substitution is restricted
NTE: also incorporates claim 12

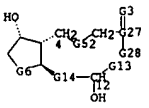
L12 ANSWER 8 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 134:162868 MARPAT
TITLE: Novel 2-decarboxy-2-phosphinico prostaglandin F analogs
INVENTOR(S): Delong, Mitchell Anthony; Wos, John August; De, Biswanath; Ebetino, Frank Hallock
PATENT ASSIGNEE(S): Procter & Gamble Company, USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001010873	A1	20010215	WO 2000-US20851	20000801
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1202999	A1	20020508	EP 2000-950904	20000801
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
US 6372730	B1	20020416	US 2000-632256	20000803
NO 2002000523	A	20020402	NO 2002-523	20020201
PRIORITY APPLN. INFO.:			US 1999-147132P	19990804
			WO 2000-US20851	20000801

AB Novel prostaglandin F analogs of formula I [R1 = H, alkyl; R2 = H, alkyl, heteroalkyl, carbocyclic ring; X = O, S; Y = O, S, NH; V = alkyl, heteroalkyl; W = OH, (substituted) NHOH; (substituted) NOH; Z = alkyl, heteroalkyl, alkyl-cycloalkyl, etc.] are prepd. This invention also includes optical isomers, diastereomers and enantiomers of the formula, and pharmaceutically-acceptable salts, biohydrolyzable amides, esters, and imides thereof. The compds. of the present invention are useful for the treatment of a variety of diseases and conditions, such as bone disorders and glaucoma. Accordingly, the invention further provides pharmaceutical compns. comprising these compds. The invention still further provides methods of treatment for bone disorders and glaucoma using these compds. or the compns. contg. them. Thus, II is prepd. and is used in tablets and liq. compns.

MSTR 1

L12 ANSWER 8 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)



G5 = Ak<(4)> (SO)
G6 = 21

G7 = OH
G13 = Cb<EC (4-12) C, AR (0), RC (1-2)> (SO)
G14 = CH2CH2
MPL: claim 1
NTE: additional heteroatom interruptions also claimed
NTE: and pharmaceutically-acceptable salts, or biohydrolyzable amides, esters, or imides
NTE: substitution is restricted

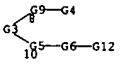
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 134:110476 MARPAT
TITLE: Composition for treatment of external secretion disorders
INVENTOR(S): Ueno, Ryuji
PATENT ASSIGNEE(S): R-Tech Ueno, Ltd., Japan
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005388	A2	20010125	WO 2000-JP4696	20000713
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000012387	A	20020326	BR 2000-12387	20000713
EP 1223925	A2	20020724	EP 2000-944426	20000713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
NO 2002000133	A	20020313	NO 2002-133	20020111
PRIORITY APPLN. INFO.:			US 1999-143627P	19990714
			WO 2000-JP4696	20000713

AB Disclosed is a compn. for treatment of external secretion disorders comprising, as an active ingredient, a fatty acid deriv. The compn. is useful for treatment of at least one condition selected from hypolacrimation including disorder of basal tear secretion, dry-eye syndrome, hyposalivation and dry-mouth syndrome. An ophthalmic soln. contg. 0.001% 13,14-dihydro-15-keto-16,16-difluoro-PGE1 caused an increase of the amt. of whole tear secretion in rabbits at a dose which does not induce any stimulating response such as rubor in the front of the eye.

MSTR 1A



G1 = 6

G2 = OH
G3 = 4-8 5-10

L12 ANSWER 9 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

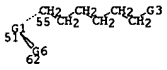
G5 = Ak<EC (2-3) C, BD (0-1) D (0-1) T, DC (0) M3>
G6 = alkylidene (SO G7)
G9 = Ak<(1-)> (SO (1-) G10)
G12 = Ak<(1-)> (SO (1-) G13)
G13 = OH / cycloalkyl<(3-6)>
MPL: claim 9
NTE: substitution is restricted

L12 ANSWER 12 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 133:222495 MARPAT
TITLE: preparation of aldehyde intermediates useful in making prostaglandin derivatives
INVENTOR(S): Delong, Mitchell Anthony; Soper, David Lindsey; Wos, John August; De, Biswanath
PATENT ASSIGNEE(S): Procter and Gamble Company, USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000051977	A1	20000908	WO 2000-US5201	20000229
W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, T2, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 1999-123010P 19990305
AB Surprisingly the disadvantages of the lengthy procedures previously known to synthesize 13,14-dihydro prostaglandin A, D, E, and F derivs. can be overcome using a novel C1, C9, and C11-protected 7-(5-(3-oxopropyl)-2,4-dihydroxy-cyclopentyl) heptanoic acid intermediate (I) (R = alkyl, carbocyclic/heterocyclic aliph. ring, arom., heteroarom. ring; Q1, Q2 = same or different non-electrophilic alc. protecting group) , which can be synthesized from com. available Me 7-[3-(R)-hydroxy-5-oxo-1-cyclopent-1-yl] heptanoate. I can be coupled with carbon nucleophiles Y-[C(R3)(R3)]n-Z (Y = -C≡C-, -CH=C=CH-, etc; R3 = H, alkyl, alkoxyl, haloalkyl, carbocyclic/heterocyclic aliph. ring etc.; n is an integer from 0 - 5 etc,; Z = H, R etc.) in the presence of a base to provide 13,14-dihydro prostaglandin A, D, E, and F derivs (II) (R1 = CO2H, C(O)NHOH, CO2R, S(O)2R etc).

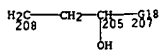
MSTR 3



G1 = 92-55 93-62

L12 ANSWER 12 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

G9 = Cb<EC (4-12) C, AR (0), RC (1-2)> (SO)
G12 = 208-51 207-203



MPL: claim 8
NTE: additional heteroatom interruptions in G10 also claimed
NTE: substitution is restricted

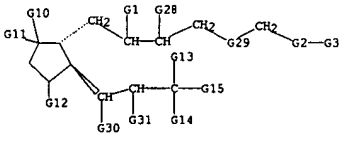
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 133:68993 MARPAT
TITLE: EP4 receptor agonists for treatment of dry eye
INVENTOR(S): Sharif, Najam A.
PATENT ASSIGNEE(S): Alcon Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000038663	A2	20000706	WO 1999-US29734	19991214
WO 2000038663	A3	20001116		
W: AU, BR, CA, JP, MX, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRIORITY APPLN. INFO.: US 1998-113698P 19981224
AB EP4 receptor agonists are used for the treatment of dry eye and related diseases. Example agonists are 11-deoxyprostaglandin E1, 16,16-dimethylprostaglandin E2, its 11-deoxy deriv. and ZK-118182.

MSTR 1



G10 = OH
G12 = OH
G14 = OH
G15 = cycloalkyl<(3-7)>
G29 = CH2
MPL: claim 1
NTE: substitution is restricted

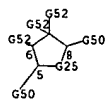
L12 ANSWER 14 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 131:299243 MARPAT
TITLE: Preparation of aminocyclopentanecarboxylates and analogs as influenza virus neuraminidase inhibitors
INVENTOR(S): Maring, Clarence J.; Gu, Yu-Gui; Chen, Yuanwei; Degoey, David A.; Giranda, Vincent L.; Grampovnik, David J.; Kati, Warren M.; Kempf, Dale J.; Kennedy, April; Lin, Zhen; Madigan, Darold L.; Muchmore, Steven W.; Sham, Hing L.; Stewart, Kent D.; Stoll, Vincent S.; Sun, Minghua; Wang, Gary T.; Wang, Sheldon; Yeung, Ming C.; Zhao, Chen
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 272 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9954290	A1	19991028	WO 1999-US7949	19990412
W: CA, JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2329660	AA	19991028	CA 1999-2329660	19990412
EP 1087938	A1	20010404	EP 1999-918495	19990412
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 2002521312	T2	20020716	JP 2000-544631	19990412
			US 1998-65803	19980423
			WO 1999-US7949	19990412

PRIORITY APPLN. INFO.:
AB Title compds. [I; R = CR3R4XR2; R1 = CO2H, SO3H, tetrazolyl, etc.; R2 = H, (halo)alk(en)yl, etc.; R3,R4 = H, cycloalk(en)yl, heterocyclyl, aryl, etc.; R6,R7 = H, (cyclo)alk(en)yl, aryl, etc.; R8-R10 = H, (cyclo)alk(en)yl, F; X = CONH, NHCO, SO3NH, etc.; Y = (halo)alk(en)yl, alkoxy, (halo)phenyl, etc.; Z = O, S, C(R5)2; R5 = H, alkyl, alkoxy(alkyl), (di)(alkyl)amino, etc.] were prepd. Thus, title compd. II was prepd. in a multistep synthesis starting from norbornadiene. Data for biol. activity of I were given.

MSTR 1

G1 = 5-1 6-4 8-3



G25 = CH2 (SO)

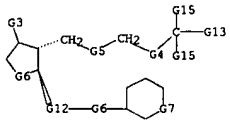
L12 ANSWER 20 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

L12 ANSWER 21 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 124:29516 MARPAT
TITLE: Use of certain prostaglandin analogs to treat glaucoma and ocular hypertension
INVENTOR(S): Sallee, Verney L.; Desantis, Louis, Jr.; Zinke, Paul W.; Bishop, John E.
PATENT ASSIGNEE(S): Alcon Laboratories, Inc., USA
SOURCE: Can. Pat. Appl., 59 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2138181	AA	19950616	CA 1994-2138181	19941215
US 5721273	A	19980224	US 1993-167470	19931215
JP 10120572	A2	19980512	JP 1994-332909	19941215
US 5627209	A	19970506	US 1995-548257	19951025
US 6344581	B1	20020205	US 1997-962200	19971031
US 2002107414	A1	20020808	US 2002-67714	20020204
PRIORITY APPLN. INFO.:			US 1993-167470	19931215
			US 1993-167747	19931215
			US 1997-962200	19971031

AB Prostaglandin analogs I [R = H,cation, ester moiety; R1, R2 = (un)substituted OH; R3 = halogen; Y = CH2, O; n = 1, 2], useful in the treatment of glaucoma and ocular hypertension were prepd. Thus, I [R = CMe3, R1, R2 = OH, R3 = Cl, Y = O, n = 2, II] was prepd. from the oxabicyclooctanecarboxaldehyde, cyclohexanecarboxylate, and MeP(O)(OMe)2 in 15 steps. II decreased intraocular pressure by 47.5.+-.5.1% measured 2 h after 5 X 5 .mu.g doses.

MSTR 2



G3 = OH
G4 = CH2
G5 = CH2CH2
G6 = 30

G11 = OH
G12 = CH2CH2

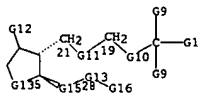
L12 ANSWER 21 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
MPL: claim 14

L12 ANSWER 22 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 123:339523 MARPAT
TITLE: Use of certain prostaglandin analogues to treat glaucoma and ocular hypertension.
INVENTOR(S): Sallee, Verney L.; DeSantis, Louis, Jr.; Zinke, Paul W.; Bishop, John E.; Klimko, Peter G.; Selliah, Robert D.; Dean, Thomas R.; Hellberg, Mark R.
PATENT ASSIGNEE(S): Alcon Laboratories, Inc., USA
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 667160	A2	19950816	EP 1994-119571	19941210
EP 667160	A3	19951115		
EP 667160	B1	20020502		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 5721273	A	19980224	US 1993-167470	19931215
AU 9479138	A1	19950622	AU 1994-79138	19941130
AU 687906	B2	19980305		
EP 1088816	A2	20010404	EP 2000-204408	19941210
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT				
AT 216889	E	20020515	AT 1994-119571	19941210
US 5627209	A	19970506	US 1995-548257	19951025
US 6344581	B1	20020205	US 1997-962200	19971031
US 2002107414	A1	20020808	US 2002-67714	20020204
PRIORITY APPLN. INFO.:			US 1993-167470	19931215
			US 1993-167747	19931215
			US 1994-316672	19940930
			EP 1994-119571	19941210
			US 1997-962200	19971031

AB D series prostaglandin analogs I (R1 = CO2R2, ophthalmically acceptable ester moiety; R2 = H, cationic salt moiety, ophthalmically acceptable ammonium moiety; R3, R4 = free or modified hydroxy; R5 = H, R52 = bond; X = halo; Y = CH2, O; n = 0, 1) were prepd. as agents for lowering intra ocular pressure and are useful in the treatment of glaucoma and ocular hypertension. Thus the prostaglandin II was prepd. in a multistep procedure starting from di-Me methylphosphonate and Me cyclohexanecarboxylate. At 3 .mu.g II lowered intraocular pressure from baseline by 42%. Also disclosed are ophthalmic, pharmaceutical compns. comprising such prostaglandin analogs.

MSTR 2



G10 = CH2
G11 = CH2CH2

L12 ANSWER 22 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
G12 = OH (SO)
G13 = 25

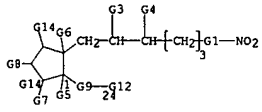
G14 = OH (SO)
G15 = CH2CH2
G16 = cyclopentyl
MPL: claim 14
NTE: substitution is restricted

L12 ANSWER 23 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 121:205124 MARPAT
TITLE: Cyclopentane heptenylnitro and heptanylnitro-2-aliphatic or arylaliphatic derivatives as ocular hypotensives
INVENTOR(S): Chan, Ming Fai
PATENT ASSIGNEE(S): Allergan, Inc., USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9410141	A1	19940511	WO 1993-US10084	19931021
W: CA, HU, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5328933	A	19940712	US 1992-967603	19921028

PRIORITY APPLN. INFO.: US 1992-967603 19921028
AB The title compds. [I; A = C2-7 (un)substituted alkylene; B = Me, C3-7 cycloalkyl, aryl, heteroaryl; R1, R2 = H, OH, ester; R8 = H, C1-3 alkyl; x = 1-3], useful as ocular hypotensives for the treatment of glaucoma, are prepd. and their ocular hypotensive use demonstrated.

MSTR 1



G9 = alkylene<(2-7)> (SO (1-) G10)
G10 = OH
G12 = cycloalkyl<(3-7)> (SO (1-) G13)
G14 = OH
DER: or pharmaceutically acceptable salts
MPL: claim 1

L12 ANSWER 24 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 121:83988 MARPAT
TITLE: Preparation of 1-amino-2-carboxycyclopentanes as antimycotics and antibacterials.
INVENTOR(S): Mittendorf, Joachim; Kunisch, Franz; Matzke, Michael; Militzer, Hans Christian; Endermann, Rainer; Metzger, Karl Georg; Bremm, Klaus Dieter; Plempel, Manfred
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Eur. Pat. Appl., 79 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

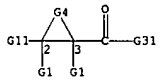
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 571870	A1	19931201	EP 1993-108044	19930517
EP 571870	B1	19980819		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
DE 4217776	A1	19931202	DE 1992-4217776	19920529
DE 4302155	A1	19940728	DE 1993-4302155	19930127
AU 9338293	A1	19931202	AU 1993-38293	19930429
AU 673824	B2	19961128		
NO 9301718	A	19931130	NO 1993-1718	19930511
AT 169900	E	19980915	AT 1993-108044	19930517
ES 2121892	T3	19981216	ES 1993-108044	19930517
IL 105797	A1	19980615	IL 1993-105797	19930525
CA 2097044	AA	19931130	CA 1993-2097044	19930526
CZ 286591	B6	20000517	CZ 1993-1008	19930527
ZA 9303757	A	19931221	ZA 1993-3757	19930528
JP 06056751	A2	19940301	JP 1993-151466	19930528
HU 65188	A2	19940502	HU 1993-1584	19930528
PL 173771	B1	19980430	PL 1993-299118	19930528
RU 2126379	C1	19990220	RU 1993-5256	19930528
PL 177229	B1	19991029	PL 1993-316355	19930528
CN 1080634	A	19940112	CN 1993-106218	19930529
CN 1065237	B	20010502		
US 5739160	A	19980414	US 1994-308873	19940919
US 5631291	A	19970520	US 1994-336584	19941109
US 5770622	A	19980623	US 1996-709073	19960906
FI 2001000045	A	20010110	FI 2001-45	20010110

PRIORITY APPLN. INFO.: DE 1992-4217776 19920529
DE 1993-4302155 19930127
US 1993-66751 19930521
US 1994-308873 19940919
US 1994-336584 19941109

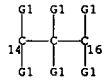
AB Title compds. [I; A, B, D, E, G, L, M, T = H, halo, PhCH2, OH, (substituted) alkyl; or BD, EG, LM = :CR6R7, NOH; R6, R7 = H, halo, alkyl, alkoxy, oxyacyl, PhCH2, Ph; or EG, BD = O, S; or BE or EM = bond; R2 = H, protecting group, (substituted) alkyl, acyl, PhCO, etc; R3 = H, (substituted) alkyl; or R2R3 = CHR14; R14 = H, (substituted) alkyl; V = O, S, NH; R1 = H, alkyl, (substituted) Ph; with provisos], were prepd. Thus, title compd. II (prepn. from di-Et cis-4-methylene-1,2-dicarboxylate given) at 2 .times. 100 mg/kg in mice infected with Staphylococcus aureus gave 83% survival after 6 days.

MSTR 1

L12 ANSWER 24 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)



G1 = OH / alkyl<(-8)> (SO (1-2) G2)
G2 = OH / Ph
G4 = 14-2 16-3



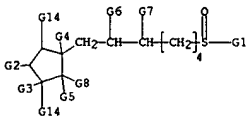
DER: and acid addition salts or metal complexes
MPL: claim 1
NTE: substitution is restricted
STE: and isomeric forms

L12 ANSWER 25 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 121:65564 MARPAT
TITLE: Heptenylsulfinylalkylcyclopentanes and analogs thereof for the treatment of ocular hypertension
INVENTOR(S): Chan, Ming Fai
PATENT ASSIGNEE(S): Allergen , Inc., USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9409788	A1	19940511	WO 1993-US10029	19931021
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5312842	A	19940517	US 1992-968700	19921030
PRIORITY APPLN. INFO.:			US 1992-968700	19921030

AB The title compds. are effective for treating glaucoma. 5-Cis-2-(3-.alpha.-hydroxy-1-trans-octenyl)-3,5-dihydroxy[1.alpha.,2.beta.,3.alpha.,5.alpha.]heptenylsulfinylmethylcyclopentane was prepd. and applied to the eyes of dogs to demonstrate its intraocular pressure-lowering activity.

MSTR 1



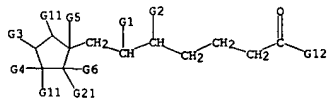
G9 = alkylene<(2-7)> (SO (1-) G10)
G10 = OH
G12 = cycloalkyl<(3-7)> (SO (1-) G13)
G14 = OH
DER: or pharmaceutically acceptable salts
MPL: claim 1

L12 ANSWER 26 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 121:26934 MARPAT
TITLE: Azido derivatives of cyclopentane heptanoic or heptenoic acid for ocular hypotensives
INVENTOR(S): Chan, Ming Fai
PATENT ASSIGNEE(S): Allergan, Inc., USA
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9408586	A2	19940428	WO 1993-US9769	19931013
WO 9408586	A3	19940526		
W: AU, CA, HU, JP, NZ				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5332730	A	19940726	US 1992-962179	19921016
AU 9453583	A1	19940509	AU 1994-53583	19931013
PRIORITY APPLN. INFO.:			US 1992-962179	19921016
			WO 1993-US9769	19931013

AB The title compds. I [A = (substituted) C2-7 alkenylene or alkylene; B = Me, C3-7 cyclalkyl, aryl, heteroaryl (heteroatom = N, O, S); R1, R2 = OH and ester derivs. thereof, azido (.gtoreq.1 of R1 and R2 is azido); X = OH, alkyloxy; Z = (CH2)2, CH:CH], and pharmaceutically acceptable salts thereof, are disclosed. These azido compds. are useful as ocular hypotensives and are intermediates for the prepn. of other compds. useful as ocular hypotensives. Prepn. of e.g. cyclopentane heptenoic acid, 5-cis-2-(3-.alpha.-hydroxy-1-trans-octenyl)-3-hydroxy-5-azido [1.alpha.,2.beta.,3.alpha.,5.beta.], is described. Results of effects of compds. of the invention on intraocular pressure are also included.

MSTR 1



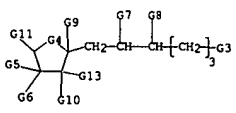
G7 = alkylene<(2-7)> (SO (1-) G8)
G8 = OH
G10 = cycloalkyl<(3-7)>
G11 = OH
DER: and pharmaceutically acceptable salts
MPL: claim 1

L12 ANSWER 27 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 120:315840 MARPAT
TITLE: Nonacidic cyclopentane heptanoic acid 2-cycloalkyl or arylalkyl derivatives for smooth muscle relaxants and for treatment of glaucoma
INVENTOR(S): Woodward, David F.; Andrews, Steven W.; Burk, Robert M.; Garst, Michael E.
PATENT ASSIGNEE(S): Allergen, Inc., USA
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9406433	A1	19940331	WO 1993-US8472	19930909
W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5352708	A	19941004	US 1992-948056	19920921
EP 660716	A1	19950705	EP 1993-921435	19930909
EP 660716	B1	20011128		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08501310	T2	19960213	JP 1993-508155	19930909
AU 676492	B2	19970313	AU 1993-48526	19930909
AT 209494	E	20011215	AT 1993-921435	19930909
ES 2166364	T3	20020416	ES 1993-921435	19930909
PRIORITY APPLN. INFO.:			US 1992-948056	19920921
			WO 1993-US8472	19930909

AB Cyclopentane heptanoic acid, 2-cycloalkyl or arylalkyl derivs., substituted in the 1-position with halo, Me, hydroxyl, nitro, amino, amido, azido, oxime, cyano, thiol, ether or thioether groups, e.g., a 1-OH cyclopentane heptanoic acid, 2-(cycloalkyl or arylalkyl) derivs, are disclosed (Markush included). The compds. of the invention are potent ocular hypotensives, and are particularly suitable for the management of glaucoma. Moreover, the compds. of the invention are smooth muscle relaxants with broad application in systemic hypertensive and pulmonary diseases; smooth muscle relaxants with application in gastrointestinal disease, reprodn., fertility, incontinence, shock, etc. Prepn. of selected compds. is described, as are radioligand binding studies, effect on intraocular pressure, effect on smooth muscle contraction, etc.

MSTR 1



G1 = alkylene<(2-6)> (SO G14)
G2 = cycloalkyl<(3-7)>
G4 = CHOH

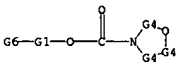
L12 ANSWER 27 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
G5 = OH
G14 = OH
DER: or pharmaceutically acceptable salts
MPL: claim 1
NTE: substitution is restricted

L12 ANSWER 28 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 119:203398 MARPAT
TITLE: Preparation of (optically active) cycloalkyl oxazolidinecarboxylates
INVENTOR(S): Hoppe, Dieter; Paetow, Mario
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Ger. Offen., 15 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

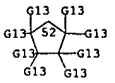
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4142189	A1	19930624	DE 1991-4142189	19911220

OTHER SOURCE(S): CASREACT 119:203398
AB Title compds. {I; X1X2 = atoms to form an (unsatd.) (substituted) C3-6 carbocyclic ring; R8-R13 = H, alkyl, Ph, cycloalkyl; R8R9, R10R11, R12R13 = atoms to complete satd. 3-6 membered rings; A = (substituted) alkyl, alkenyl], were prepd. Thus, HOCH2CMe2CH2OH was condensed with 2,2,4,4-tetramethyl-1,3-oxazolidine-3-carbonyl chloride using NaH in THF to give 72% 2,2-dimethylpropan-1,3-diylbis(2,2,4,4-tetramethyl-1,3-oxazolidine-3-carboxylate. This in Et2O was treated with (-)-sparteine, sec-BuLi, and then Me3SiCl at -78.degree. to room temp. to give 88% II (R15 = H). This in Et2O was treated with tetramethylethylenediamine, sec-BuLi, and then ClCO2Me at -78.degree. to room temp. to give II (R15 = CO2Me).

MSTR 1



G1 = 52



G6 = alkyl<(-8)> (SO (-3) G7)
G7 = OH / cycloalkyl<(3-7)>
G13 = alkyl<(-6)> / OH
MPL: claim 1

L12 ANSWER 29 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 115:272717 MARPAT
TITLE: Nuclease-resistant modified oligonucleotide for detecting and modulating RNA activity and gene expression
INVENTOR(S): Cook, Philip Dan; Ecker, David J.; Guinosso, Charles John; Acevedo, Oscar Leobardo; Kawasaki, Andrew Mamoto; Ramasamy, Kandasamy
PATENT ASSIGNEE(S): Isis Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 194 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 95
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9110671	A1	19910725	WO 1991-US243	19910111
W: AU, BR, CA, FI, HU, JP, KR, NO, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
CA 2073500	AA	19910712	CA 1991-2073500	19910111
AU 9171798	A1	19910805	AU 1991-71798	19910111
AU 651569	B2	19940728		
BR 9105935	A	19921117	BR 1991-5935	19910111
JP 05502031	T2	19930415	JP 1991-503393	19910111
JP 2580091	B2	19970212		
HU 63170	A2	19930728	HU 1992-2283	19910111
EP 604409	A1	19940706	EP 1991-903066	19910111
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
CA 2089376	AA	19920214	CA 1991-2089376	19910812
FI 9203176	A	19920709	FI 1992-3176	19920709
NO 9202718	A	19920909	NO 1992-2718	19920709
US 6060592	A	20000509	US 1994-212006	19940311
US 6153737	A	20001128	US 1994-211882	19940422
US 6358931	B1	20020319	US 1994-295744	19940830
US 6262241	B1	20010717	US 1995-383666	19950203
JP 08098700	A2	19960416	JP 1995-175173	19950711
US 6339066	B1	20020115	US 1997-829637	19970331
AU 713740	B2	19991209	AU 1997-26244	19970624
AU 9726244	A1	19971106		
US 5948903	A	19990907	US 1998-74503	19980508
US 6232463	B1	20010515	US 1998-128508	19980804
US 6239265	B1	20010529	US 1998-208533	19981209
US 6369040	B1	20020409	US 1999-384826	19990827
US 6395492	B1	20020528	US 2000-633659	20000807
US 2001008936	A1	20010719	US 2001-784917	20010216
US 2002160972	A1	20021031	US 2001-974326	20011010

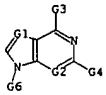
PRIORITY APPLN. INFO.:
US 1990-463358 19900111
US 1990-566977 19900813
WO 1991-US243 19910111
US 1991-777670 19911015
US 1991-777760 19911015
US 1991-777007 19911016
US 1991-782374 19911024
US 1992-846556 19920305
US 1992-852852 19920316

L12 ANSWER 29 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

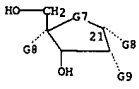
US 1992-854634	19920701
US 1992-942961	19920910
WO 1992-US9196	19921023
US 1993-3487	19930112
AU 1993-38025	19930225
US 1993-27011	19930305
WO 1993-US2057	19930305
US 1993-58023	19930505
US 1993-89996	19930709
US 1994-212006	19940311
US 1994-211882	19940422
US 1994-297703	19940829
US 1994-295744	19940830
US 1995-468569	19950606
US 1995-469851	19950606
US 1995-470129	19950606
US 1995-481066	19950607
US 1995-514762	19950814
US 1996-635009	19960419
US 1996-762588	19961210
US 1997-948151	19971009
US 1998-208533	19981209

AB Oligonucleotide analogs contg. modified sugars are prepd. for use in antisense oligonucleotide diagnostics and therapeutics. Protected 2'-o-nonyladenosine phosphoramidate was prepd. and incorporated by solid phase synthesis into 15-mers complementary to a portion of the papillomavirus genome. The Tm of the unmodified 15-mer and the Tm's of the 15-mers contg. 1 of 3 adenosine analogs were comparable but the nuclease resistance was increased approx. 5- and 64-fold, resp.

MSTR 1



G6 = 21



G7 = 25

G8 = loweralkyl (SO (1-) G12)
G9 = loweralkyl (SO (1-) G12)

L12 ANSWER 29 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
G11 = OH
G12 = aryl / OH
MPL: claim 1
NTE: substitution is restricted

L12 ANSWER 30 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 113:1159 MARPAT
TITLE: Use of 15-ketoprostaglandin E or F compounds for uterine contraction
INVENTOR(S): Ryuzo, Ueno; Ryuji, Ueno; Tomio, Oda
PATENT ASSIGNEE(S): Kabushiki Kaisha Ueno Seiyaku Oyo Kenkyusho, Japan
SOURCE: Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 342003	A1	19891115	EP 1989-304724	19890510
EP 342003	B1	19930908		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AU 8934579	A1	19891116	AU 1989-34579	19890509
AU 619543	B2	19920130		
AT 94066	E	19930915	AT 1989-304724	19890510
ES 2059740	T3	19941116	ES 1989-304724	19890510
JP 02085248	A2	19900326	JP 1989-118026	19890511
JP 07064733	B4	19950712		
CA 1330796	A1	19940719	CA 1989-599424	19890511
KR 9701147	B1	19970129	KR 1989-6366	19890511
US 5185374	A	19930209	US 1991-687790	19910422
JP 07165704	A2	19950627	JP 1994-283283	19941117
JP 2529095	B2	19960828		

PRIORITY APPLN. INFO.: JP 1988-115408 19880511
JP 1988-137666 19880602
US 1989-349548 19890509
EP 1989-304724 19890510

AB Prostanoic acid derivs. for manuf. of medicaments to induce uterine contraction and interrupt pregnancy are selected from 15-ketoprostaglandin E compds. (15-keto PGE) and 15-ketoprostaglandin F compds. (15-keto PGF) with the proviso that when the only group, which is unsubstituted n-pentyl, is attached to C15 of the prostanoic acid nucleus and the bond between C5 and C6 is a double bond, than the bond between C13 and C14 is a single bond. 13,14-Dihydro-15-keto-16-desbutyl-16-m-trifluoromethylphenoxy-PGE2 was synthesized from trifluorocresol in 17 steps. 13,14-Dihydro-15-keto-PGF2.alpha. Me ester at 3 .times. 10-5 M induced uterine contractions 98% that of oxytocin (1 mU). Formulations of 13,14-dihydro-15-keto-16-desbutyl-16-m-trifluoromethylphenoxy-PGF2.alpha. are given.

MSTR 1

G1 = OH

L12 ANSWER 30 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
G2 = 7

G7 = Ak<(1-14)> (SO (1-) G8)
G9 = Ak<(1-14)> (SO (1-) G10)
G10 = OH / cycloalkyl<(1-6)>
MPL: disclosure
NTE: substitution is restricted

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=> d his

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     FILE 'REGISTRY' ENTERED AT 16:04:46 ON 23 DEC 2002
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L2             0 S L1
L3             0 S L1 FULL
L4                STRUCTURE UPLOADED
L5             1 S L4
L6            14 S L4 FULL

     FILE 'USPATFULL' ENTERED AT 16:07:40 ON 23 DEC 2002
L7             7 S L6

     FILE 'CAPLUS' ENTERED AT 16:08:54 ON 23 DEC 2002
L8             3 S L6/USES
L9             9 S L6
L10            6 S L9 NOT L8

     FILE 'MARPAT' ENTERED AT 16:11:16 ON 23 DEC 2002
L11           31 S L6 FULL
L12           30 S L11/COM
```

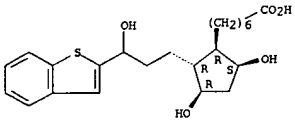
L7 ANSWER 1 OF 7 USPATFULL
ACCESSION NUMBER: 2002:307574 USPATFULL
TITLE: Compositions and methods for treating hair loss using non-naturally occurring prostaglandins
INVENTOR(S): DeLong, Michell Anthony, West Chester, OH, UNITED STATES
McIver, John McMillan, Cincinnati, OH, UNITED STATES
Youngquist, Robert Scott, Mason, OH, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002172693	A1	20021121
APPLICATION INFO.:	US 2001-774557	A1	20010131 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-193645P	20000331 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Catherine U. Brown, The Procter & Gamble Company, Miami Valley Laboratories, P.O. Box 538707, Cincinnati, OH, 45253-8707
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
LINE COUNT: 2198
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for treating hair loss in mammals uses compositions containing prostaglandin F analogs. The compositions can be applied topically to the skin. The compositions can arrest hair loss, reverse hair loss, and promote hair growth.
IT **290823-50-6 365219-89-2**
(compns. for treating hair loss with non-naturally occurring prostaglandins)
RN 290823-50-6 USPATFULL
CN Cyclopentaneheptanoic acid, 2-(3-benzo[b]thien-2-yl-3-hydroxypropyl)-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

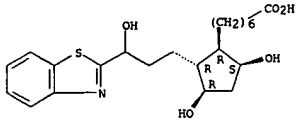
Absolute stereochemistry.



RN 365219-89-2 USPATFULL
CN Cyclopentaneheptanoic acid, 2-[3-(2-benzothiazolyl)-3-hydroxypropyl]-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L7 ANSWER 1 OF 7 USPATFULL (Continued)



L7 ANSWER 2 OF 7 USPATFULL
ACCESSION NUMBER: 2002:67260 USPATFULL
TITLE: C16 unsaturated FP-selective prostaglandins analogs
INVENTOR(S): deLong, Mitchell Anthony, West Chester, OH, UNITED STATES
Soper, David Lindsey, Mason, OH, UNITED STATES
Wos, John August, Cincinnati, OH, UNITED STATES
De, Biswanath, Cincinnati, OH, UNITED STATES

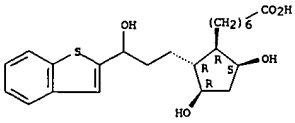
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002037913	A1	20020328
APPLICATION INFO.:	US 2001-946021	A1	20010904 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2000-US5301, filed on 29 Feb 2000, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-122924P	19990305 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: THE PROCTER & GAMBLE COMPANY, PATENT DIVISION, HEALTH CARE RESEARCH CENTER, 8340 MASON-MONTGOMERY ROAD, MASON, OH, 45040
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
LINE COUNT: 1071
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compounds having the general structure: ##STR1##

which are useful for the treatment of a variety of diseases and conditions, such as bone disorders.
IT **290823-50-6P 291303-31-6P 291303-33-8P**
(prepn. of prostaglandin F analogs for treatment of bone disorders and glaucoma)
RN 290823-50-6 USPATFULL
CN Cyclopentaneheptanoic acid, 2-(3-benzo[b]thien-2-yl-3-hydroxypropyl)-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

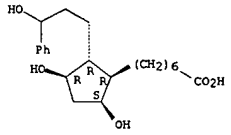
Absolute stereochemistry.



RN 291303-31-6 USPATFULL
CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-(3-hydroxy-3-phenylpropyl)-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

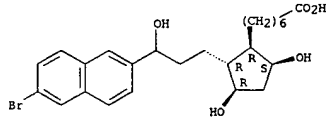
Absolute stereochemistry.

L7 ANSWER 2 OF 7 USPATFULL (Continued)



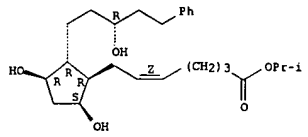
RN 291303-33-8 USPATFULL
CN Cyclopentaneheptanoic acid, 2-[3-(6-bromo-2-naphthalenyl)-3-hydroxypropyl]-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



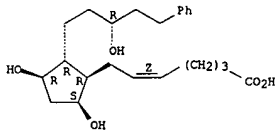
L18 ANSWER 38 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:417226 CAPLUS
DOCUMENT NUMBER: 122:205244
TITLE: Prostaglandins as ocular hypotensive agents; Development of an analog for glaucoma treatment
AUTHOR(S): Stjernschantz, Johan
CORPORATE SOURCE: Glaucoma Research Laboratories, Pharmacia Ophthalmics, Uppsala, S-751 82, Swed.
SOURCE: Advances in Prostaglandin, Thromboxane, and Leukotriene Research (1995), 23(Prostaglandins and Related Compounds), 63-8
CODEN: ATLRD6; ISSN: 0732-8141
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with 28 refs., of the development of prostaglandins as clin. useful drugs for glaucoma treatment. Specific topics discussed were: esters of PGF2.alpha. as ocular hypotensives and phenyl-substituted prostaglandin analogs. Special mention is made of PGF2.alpha.-iso-Pr ester and lanatoprost.
IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prostaglandins as ocular hypotensive for glaucoma treatment)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



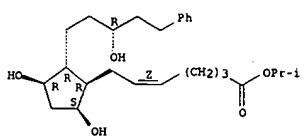
L18 ANSWER 39 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:253117 CAPLUS
DOCUMENT NUMBER: 122:96643
TITLE: Cloning of the rat and human prostaglandin F2.alpha. receptors and the expression of the rat prostaglandin F2.alpha. receptor
AUTHOR(S): Lake, S.; Gullberg, H.; Wahlqvist, J.; Sjoegren, A.-M.; Kinhult, A.; Lind, P.; Hellstroem-Lindahl, E.; Stjernschantz, J.
CORPORATE SOURCE: Pharmacia BioScience Center, S-112 87, Stockholm, Swed.
SOURCE: FEBS Letters (1994), 355(3), 317-25
CODEN: FEBLAL; ISSN: 0014-5793
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors have cloned the FP receptor from rat corpus luteum and human uterus cDNA libraries, resp. The coding DNA sequence in the rat cDNA is 1101 basepairs (bp) and is similar to the mouse cDNA coding for a receptor protein of 366 amino acids. The human sequence shows a 5 bp deficiency in the 3' region, truncating the coding sequence to 359 amino acids. Northern blot anal. indicates highest expression in the ovary. Cell lines have been established giving stable expression of the FP receptor. Activation of the cloned FP receptor gave an increase in intracellular Ca2+, indicating signaling via phospholipase C-mediated phosphoinositide turnover. Using [3H]PGF2.alpha., binding of PGs showed the rank order of fluprostenol > PhXA70 > PGF2.alpha. .gtoreq. PhXA85 > PGD2 > PGE2.
IT **41639-83-2**, PhXA 85
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(prostaglandin F2.alpha. receptor FP binding characterization in rat)
RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 40 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:215124 CAPLUS
DOCUMENT NUMBER: 122:232
TITLE: Pharmacological characterization of prostaglandin-related ocular hypotensive agents
AUTHOR(S): Goh, Yasumasa; Kishino, Junji
CORPORATE SOURCE: Shionogi Research Laboratories, Toyonaka, 561, Japan
SOURCE: Japanese Journal of Ophthalmology (1994), 38(3), 236-45
CODEN: JJOPA7; ISSN: 0021-5155
PUBLISHER: Japanese Journal of Ophthalmology
<------User Break------>
A2 19941115 JP 1993-343297 19931217
CA 2112027 AA 19940622 CA 1993-2112027 19931221
PRIORITY APPLN. INFO.: US 1992-993586 19921221
OTHER SOURCE(S): MARPAT 121:141686
AB A topical ophthalmic compn. for the treatment of glaucoma and ocular hypertension comprises a combination of a PGF [I; X, Y = CH2, O; R1 = H, cation, amine moiety, ester moiety; R2 = H, ester moiety; R3-R5 = H, Me; R6 = (substituted) C2-7 alkyl, thienyl, aryl] and a PGE (II; R7 = H, cation, amine moiety, ester moiety; R8 = H, ester moiety). Thus, an ophthalmic soln. contained PhXA41 (as the PGF) 0.02, II (R7 = Me, R8 = H) 0.001, benzalkonium chloride 0.01, polysorbate 80 0.05, NaOAc 0.07, NaCl 0.6, hydroxypropylmethylcellulose 0.5, and water to 100 wt.%.
IT **130209-82-4D**, mixt. with PGE **157283-58-4D**, mixt. with PGE **157283-59-5D**, mixt. with PGE **157283-60-8D**, mixt. with PGE **157283-61-9D**, mixt. with PGE **157283-62-0D**, mixt. with PGE **157283-63-1D**, mixt. with PGE **157283-64-2D**, mixt. with PGE **157283-77-7** **157379-22-1D**, mixt. with PGE
RL: BIOL (Biological study)
(glaucoma treatment with)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

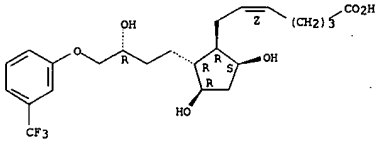
Absolute stereochemistry.
Double bond geometry as shown.



RN 157283-58-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenoxy]butyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

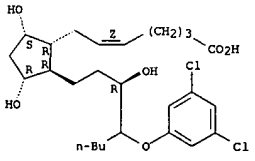
Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 40 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

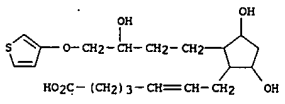


RN 157283-59-5 CAPLUS
CN Prost-5-en-1-oic acid, 16-(3,5-dichlorophenoxy)-9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



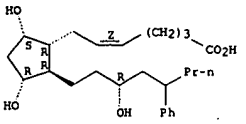
RN 157283-60-8 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-4-(3-thienyloxy)butyl]cyclopentyl]- (9CI) (CA INDEX NAME)



RN 157283-61-9 CAPLUS
CN Prost-5-en-1-oic acid, 9,11,15-trihydroxy-17-phenyl-, (5Z,9.alpha.,11.alpha.,15R)- (9CI) (CA INDEX NAME)

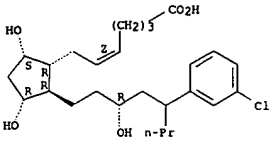
Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 40 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



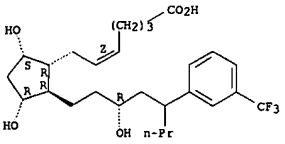
RN 157283-62-0 CAPLUS
CN Prost-5-en-1-oic acid, 17-(3-chlorophenyl)-9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 157283-63-1 CAPLUS
CN Prost-5-en-1-oic acid, 9,11,15-trihydroxy-17-[3-(trifluoromethyl)phenyl]-, (5Z,9.alpha.,11.alpha.,15R)- (9CI) (CA INDEX NAME)

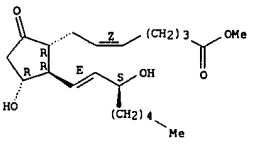
Absolute stereochemistry.
Double bond geometry as shown.



RN 157283-64-2 CAPLUS
CN Prost-5-en-1-oic acid, 17-(3,5-dichlorophenyl)-9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,15R)- (9CI) (CA INDEX NAME)

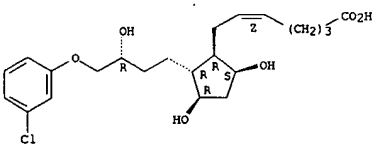
Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 40 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

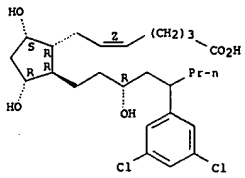


RN 157379-22-1 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(3R)-4-(3-chlorophenoxy)-3-hydroxybutyl]-3,5-dihydroxycyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 40 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

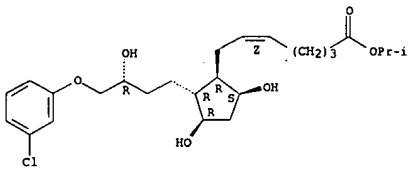


RN 157283-77-7 CAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, methyl ester, (5Z,11.alpha.,13E,15S)-, mixt. with [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.alpha.]]-1-methylethyl 7-[2-[4-(3-chlorophenoxy)-3-hydroxybutyl]-3,5-dihydroxycyclopentyl]-5-heptenoate (9CI) (CA INDEX NAME)

CM 1

CRN 157283-76-6
CMF C25 H37 Cl O6

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 31753-17-0
CMF C21 H34 O5

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

L18 ANSWER 42 OF 95 CAPLUS COPYRIGHT 2003 ACS

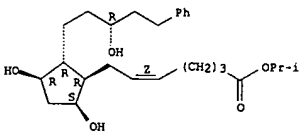
ACCESSION NUMBER: 1994:525955 CAPLUS
DOCUMENT NUMBER: 121:125955
TITLE: The effects of long term topically applied prostaglandins on aqueous protein concentration and the rabbit ciliary process
AUTHOR(S): Kosaka, Toshiya
CORPORATE SOURCE: Department Ophthalmology, Hiroshima University School Medicine, Hiroshima, 734, Japan
SOURCE: Nippon Ganka Gakkai Zasshi (1994), 98(5), 435-42
CODEN: NGZAA6; ISSN: 0029-0203
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB The effects were examd. of topically applied prostaglandin (PG) and novel PG-related compds. on the blood-aq. barrier (BAB) in the rabbit eyes. Latanoprost (PhXA41), PGF2.alpha.-iso-Pr ester (PGF2.alpha.-IE) or PGE2 were topically applied once only or once daily for 8 wk. Aq. flare was measured with a laser flare cell meter. After the repeated application for 8 wk, the morphol. changes of the ciliary portion of ciliary processes were investigated with horseradish peroxidase (HRP) as a protein tracer. PGF2.alpha.-IE 1.5 .mu.g, 3.0 .mu.g, PGE2 1.5 .mu.g caused an initial rise of aq. flare, but PhXA41 1.5 .mu.g caused no aq. flare rise. After the application of PhXA41 1.5 .mu.g or PGF2.alpha.-IE 1.5 .mu.g for 8 wk, no morphol. changes in the ciliary portion of ciliary process were found. After PGF2.alpha.-IE 3.0 .mu.g or PGE2 1.5 .mu.g for 8 wk, HRP passed through the tight junction of non-pigmented epithelial cells and there was dilatation of rough-surfaced endoplasmic reticulum in the non-pigmented epithelial cells.

IT **130209-82-4**, Latanoprost
RL: BIOL (Biological study)
(eye inflammation in response to, aq. humor protein concn. and ciliary process in relation to)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

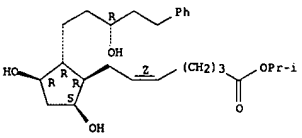


L18 ANSWER 43 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:426806 CAPLUS
DOCUMENT NUMBER: 121:26806
TITLE: Clinical efficacy of PhXA34 and PhXA41, two novel prostaglandin F2.alpha.-isopropyl ester analogs for glaucoma treatment
AUTHOR(S): Hotehama, Yasuyuki; Mishima, Hiromu K.
CORPORATE SOURCE: Sch. Med., Hiroshima Univ., Japan
SOURCE: Japanese Journal of Ophthalmology (1993), 37(3), 259-69
CODEN: JJOPA7; ISSN: 0021-5155
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Four clin. studies were performed in 54-healthy Japanese volunteers to assess the efficacy and the safety of two phenyl-substituted PGF2.alpha.-iso-Pr ester analogs, PhXA34 and PhXA41 after both single and repeated administrations. PhXA34 and PhXA41 reduced intraocular pressure (IOP) significantly in a dose-dependent way. The max. IOP redns. were 14.5% to 17.5% with baseline adjustment at 10 to 12 h after a single administration. No transient early elevation in IOP after treatment was obsd. Based on the max. IOP reducing effect of 1.mu.g of PhXA34 and PhXA41, PhXA41 appeared to be at least 1.5 times more active than PhXA34. Tachyphylaxis of the ocular hypotensive effect did not develop during repeated administration for 5 days. A mild conjunctival hyperemia occurred in some subjects at high doses; it tended to diminish with time during the repeated administration of both drugs. Neither PhXA34 nor PhXA41 caused any change at any time in the aq. flare intensity measured with a laser flare-cell meter. There were no changes in pupillary diam. after treatment. Each drug was well tolerated and caused no other ocular or systemic side effects.

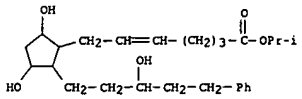
IT **130209-82-4**, PhXA 41 **155551-81-8**, PhXA 34
RL: BIOL (Biological study)
(glaucoma therapy with, in humans)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 155551-81-8 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

L18 ANSWER 43 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

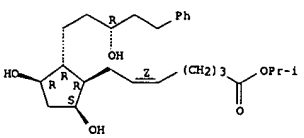


L18 ANSWER 44 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:401773 CAPLUS
DOCUMENT NUMBER: 121:1773
TITLE: Corneal permeability to the ocular metabolism of phenyl substituted prostaglandin esters in vitro
AUTHOR(S): Basu, S.; Sjoequist, B.; Stjernschantz, J.; Resul, B.
CORPORATE SOURCE: Glaucoma Res. Lab., Uppsala, S-751 82, Swed.
SOURCE: Prostaglandins, Leukotrienes and Essential Fatty Acids (1994), 50(4), 161-8
CODEN: PLEAEU; ISSN: 0952-3278
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The corneal permeability to the metab. of four Ph substituted prostaglandin analogs have been studied in vitro. Porcine corneas were mounted in incubation chambers dividing each chamber into an epithelial and endothelial side compartment. The analogs were added to incubation medium on the epithelial side. The permeability coeffs. of PhDH100A (I), PhXA12 (II), PhXA34 (III), and PhXA41 (IV) were detd. to be in the range of 5.1-11.0.times.10-6 cm .times. s-1. All analogs in the endothelial compartment had been hydrolyzed to corresponding acids but any other metab. of PhDH100A, PhXA34 and PhXA41 after 4 h of incubation was minimal. In contrast, PhXA12 free acid was extensively metabolized to the 13,14-dihydro metabolite. To investigate whether the porcine ocular tissues contain 15-hydroxyprostaglandin dehydrogenase (15-PGDH) activity, prostaglandin F2.alpha. (PGF2.alpha.) and PhDH100A were used as substrates. PGF2.alpha. and the phenyl-substituted analogs were also tested for their capacity as substrate to 15-PGDH in general. The 15-PGDH activity was low in all ocular tissues. The capacity of various ocular tissues or purified 15-PGDH to metabolize PhDH100A was lower than with PGF2.alpha. as substrate. PhXA34 and PhXA41 were found not to be metabolized by 15-PGDH. Thus, the Ph substituted PG esters penetrated the cornea and in the process were hydrolyzed to their corresponding acids. No appreciable further metab. occurred except for PhXA12 which was reduced by .DELTA.13-reductase.

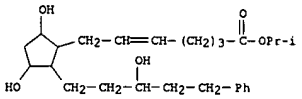
IT **130209-82-4**, PhXA 41 **155551-81-8**, PhXA 34
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(metab. and permeability of, in cornea)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



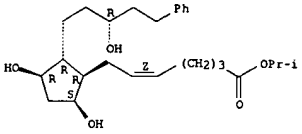
RN 155551-81-8 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

L18 ANSWER 44 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



L18 ANSWER 45 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:596453 CAPLUS
DOCUMENT NUMBER: 119:196453
TITLE: The ocular effects of prostaglandins and the therapeutic potential of a new PGF2.alpha. analog, PhXA41 (latanoprost), for glaucoma management
AUTHOR(S): Bito, Laszlo Z.; Stjernschantz, Johan; Resul, Bahram; Miranda, Olivia Carino; Basu, Samar
CORPORATE SOURCE: Dep. Ophthalmol., Columbia Univ., New York, NY, 10032, USA
SOURCE: Journal of Lipid Mediators (1993), 6(1-3), 535-43
CODEN: JLMEEG; ISSN: 0921-8319
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the early days of prostaglandin (PG) research, the infusion of large PG doses into rabbit eyes already traumatized by cannulation, led to the conclusion that PGs have a profound ocular hypertensive effect that is assocd. with a breakdown of the blood-aq. barrier. In contrast, repeated topical application of PGs to nontraumatized eyes of several species other than rabbits has later been shown to yield a maintained ocular hypotensive effect, without barrier breakdown. Due to its excellent pharmacokinetic properties, the iso-Pr ester form of PGF2.alpha. (PGF2.alpha.-IE) is a much more potent ocular hypotensive agent and appears to be better suited for the management of glaucoma than PGF2.alpha. itself or any currently used glaucoma drug. However, even this prodrug caused clin. unacceptable foreign-body sensation and conjunctival hyperemia, which could be reduced, or eliminated, only by some modifications of the omega chain of PGF2.alpha.-IE. One such analog, PhXA41, maintained highly significant IOP redn. in glaucoma patients even with once-daily application at the remarkably low concn. of 0.006%. Because PhXA41 reaches intraocular tissues and the systemic circulation in its de-esterified free-acid form, which is a good substrate for the PG transport system, it retains the most important pharmacokinetic advantages of topically applied PGF2.alpha.-IE. However, its greatly reduced side effects give PhXA41 a clear therapeutic advantage over PGF2.alpha.-IE, making it an effective new drug candidate for the long-term medical management of glaucoma.
IT **130209-82-4**, Latanoprost
RL: BIOL (Biological study)
(eye intraocular pressure decrease by)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

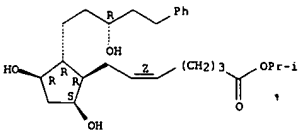
Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 45 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

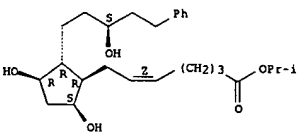
L18 ANSWER 46 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:517000 CAPLUS
DOCUMENT NUMBER: 119:117000
TITLE: Phenyl-substituted prostaglandins: potent and selective antiglaucoma agents. [Erratum to document cited in CA118(11):101683k]
AUTHOR(S): Resul, Bahram; Stjernschantz, Johan; No, Kiyo; Liljebris, Charlotta; Selen, Goeran; Astin, Maria; Karlsson, Martha; Bito, Laszlo Z.
CORPORATE SOURCE: Kabi Pharm. AB Ophthalmics, Uppsala, Swed.
SOURCE: Journal of Medicinal Chemistry (1993), 36(15), 2242
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 3 Errors in the text have been cor. The errors were not reflected in the abstr. or the index entries.
IT **130209-82-4P 145773-22-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and intraocular pressure-lowering activity of (Erratum))
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 145773-22-4 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

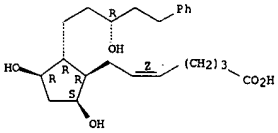
Absolute stereochemistry.
Double bond geometry as shown.



IT **41639-83-2P 41639-84-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., esterification, and intraocular pressure-lowering activity of

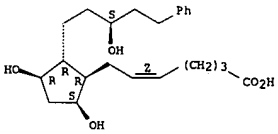
L18 ANSWER 46 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)
(Erratum))
RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



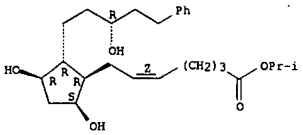
RN 41639-84-3 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 47 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:101683 CAPLUS
DOCUMENT NUMBER: 118:101683
TITLE: Phenyl-substituted prostaglandins: potent and selective antiglaucoma agents
AUTHOR(S): Resul, Bahram; Stjernschantz, Johan; No, Kiyo; Liljebris, Charlotta; Selen, Goeran; Astin, Maria; Karlsson, Maritha; Bito, Laszlo Z.
CORPORATE SOURCE: Kabi Pharm. AB Ophthalmics, Uppsala, Swed.
SOURCE: Journal of Medicinal Chemistry (1993), 36(2), 243-8
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Title compds. I and their 13,14-dihydro derivs. (II) were prepd. and evaluated for their ocular hypotensive effect and side effects in different animal models. In addn., the activity of I and II on FP receptors was studied in vitro. The results were compared with those of PGF2.alpha. and its iso-Pr ester. I and II exhibited good intraocular pressure reducing effect, were more selective, and exhibited a much higher therapeutic index in the eye than PGF2.alpha. or its iso-Pr ester. (15R)-I and II exhibited high activity on FP receptors.
IT **130209-82-4P 145773-22-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and intraocular pressure-lowering activity of)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

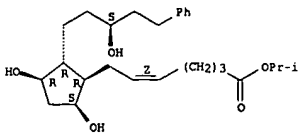
Absolute stereochemistry.
Double bond geometry as shown.



RN 145773-22-4 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

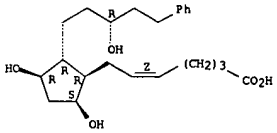
Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 47 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



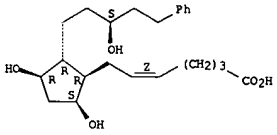
IT **41639-83-2P 41639-84-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., esterification, and intraocular pressure-lowering activity of)
RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



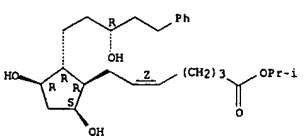
RN 41639-84-3 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 48 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:626256 CAPLUS
DOCUMENT NUMBER: 117:226256
TITLE: PhXA34, a new potent ocular hypotensive drug. A study on dose-response relationship and on aqueous humor dynamics in healthy volunteers
AUTHOR(S): Alm, Albert; Villumsen, Joergen
CORPORATE SOURCE: Dep. Ophthalmol., Univ. Hosp., Umea, S-901 85, Swed.
SOURCE: Archives of Ophthalmology (Chicago, IL, United States) (1991), 109(11), 1564-8
CODEN: AROPAW; ISSN: 0003-9950
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The prostaglandin analog PhXA34 was tested in two studies in normal human eyes; 1, 3, and 10 .mu.g of PhXA34 reduced the intraocular pressure by about 2, 3, and 4 mm Hg, resp., 6 to 10 h after a single topical dose. The only side effect obsd. was a slight conjunctival hyperemia after 10 .mu.g of PhXA34. In a second study we detd. the effect of 10 .mu.g of PhXA34 once daily for 7 days on intraocular pressure, outflow facility, aq. flow, blood-aq. barrier permeability, ocular discomfort, and hyperemia. The mean intraocular pressure wa below 9 mm Hg 12 h post dose. About one third of the intraocular pressure redn. could be explained by increased outflow facility. Aq. flow was unaffected. Treatment caused a 21% increase in aq. fluorescence 1 h after an oral dose of fluorescein. Mild ocular discomfort and some hyperemia were initially obsd. in half of the subjects, but frequency and magnitude of these side effects declined during the study.
IT **130209-82-4**, PhXA 34
RL: BIOL (Biological study)
(as ocular hypotensive, aq. humor dynamics response to, in humans, antiglaucoma activity in relation to)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 49 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:235335 CAPLUS
DOCUMENT NUMBER: 116:235335
TITLE: Process for hydrogenation of 6-(3-hydroxy-1-pentenyl)-2-oxa-3-oxobicyclo[3.3-0]octanes in preparation of PGF2.alpha. or PGE2 analogs
INVENTOR(S): Resul, Bahram
PATENT ASSIGNEE(S): Kabi Pharmacia AB, Swed.
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9202496	A1	19920220	WO 1991-SE525	19910808
W: AU, BG, CA, HU, JP, RO, SU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
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CA 2067341	C	19970930		
AU 9183915	A1	19920302	AU 1991-83915	19910808
AU 645129	B2	19940106		
EP 495069	A1	19920722	EP 1991-914853	19910808
EP 495069	B1	19960117		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
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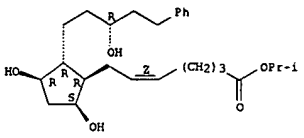
HU 62874	A2	19930628	HU 1992-1194	19910808
RO 109332	B1	19950130	RO 1979-92204	19910808
AT 133162	E	19960215	AT 1991-914853	19910808
RU 2073668	C1	19970220	RU 1991-5011925	19910808
US 5359095	A	19941025	US 1994-193525	19940208

PRIORITY APPLN. INFO.: SE 1990-2596 A 19900808
WO 1991-SE525 A 19910808
US 1992-838811 B1 19920319
OTHER SOURCE(S): MARPAT 116:235335
AB A method for prepg. 13,14-dihydro-17-Ph analogs of PGF2.alpha. or PGE2 involves hydrogenation of the double bond in pentenyllactone I [R = H, halo, OH, cyano, (hyroxy)alkyl, CF3, (hetero)aryl; R1,*R2 = H, OH, halo, (hydroxy)alkyl; R3 = H; P = protecting group] without deoxygenation of the allylic alc. moiety. No examples of hydrogenation of I (R3 = H) are given. Thus, I (R = R1 = R2 = H, R3 = P = tetrahydropyranyl) (prepn. given) was hydrogenated in THF over Pd/C to give 97% satd. compd.
IT **130209-82-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 49 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



L18 ANSWER 50 OF 95 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1981:603414 CAPLUS
DOCUMENT NUMBER: 95:203414
TITLE: 13,14-Dihydro-15-alkenyl and 13,14-dihydro-15-alkynyl prostaglandins and their analogs
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: U.S., 20 pp. Division of U.S. Ser. No. 695,420, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4268522	A	19810519	US 1979-85907	19791018
US 4283417	A	19810811	US 1979-85906	19791018

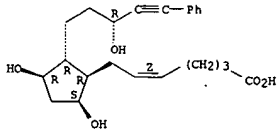
PRIORITY APPLN. INFO.: US 1976-695420 19760614

AB A series of .apprx.150 title compds., analogs, and intermediates for them (e.g., I, II) was prepd. by appropriate modifications of conventional methods.

IT **79706-97-1P 79734-35-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 79706-97-1 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenyl-4-pentynyl)cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

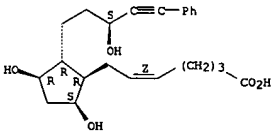
Absolute stereochemistry.
Double bond geometry as shown.



RN 79734-35-3 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenyl-4-pentynyl)cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 50 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



L18 ANSWER 51 OF 95 CAPLUS COPYRIGHT 2003 ACS

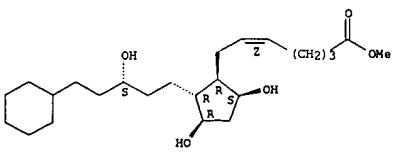
ACCESSION NUMBER: 1981:436062 CAPLUS
DOCUMENT NUMBER: 95:36062
TITLE: 18,19,20-Trinor-17-cyclohexyl-13,14-dihydro PGF2.alpha. methyl ester as a cause of hypertension in the pulmonary circulation
AUTHOR(S): Chiara, O.; Clement, M. G.; Lazzaroni, A.; Triulzi, M. O.
CORPORATE SOURCE: Ist. Fisiol. Vet. Biochim., Univ. Studi Milano, Milan, Italy
SOURCE: Bollettino - Societa Italiana di Biologia Sperimentale (1980), 56(21), 2228-33.
CODEN: BSIBAC; ISSN: 0037-8771
DOCUMENT TYPE: Journal
LANGUAGE: Italian

AB Infusion of 18,19,20-trinor-17-cyclohexyl-13,14-dihydro PGF2.alpha. Me ester (I) [**77204-95-6**] (10 .mu.g/kg/min for 5 min) into pigs increased pulmonary artery pressure and pulmonary vascular resistance, with a slight decrease in cardiac output, suggesting a potent vasoconstriction. These actions were not affected by vagosympathectomy, showing that the hypertension was due to a direct action on the vascular smooth muscle, probably of the small vessels, without autonomic nervous system mediation.

IT **77204-95-6**
RL: BIOL (Biological study)
(pulmonary circulation and pressure response to)

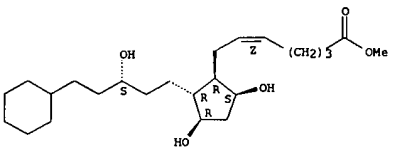
RN 77204-95-6 CAPLUS
CN 5-Heptenoic acid, 7-[2-(5-cyclohexyl-3-hydroxypentyl)-3,5-dihydroxycyclopentyl]-, methyl ester, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 52 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1981:185964 CAPLUS
DOCUMENT NUMBER: 94:185964
TITLE: Changes in respiratory mechanics produced by the administration of 18,19,20-trinor-17-cyclohexyl-13,14-dihydro PGF2.alpha. methyl ester
AUTHOR(S): Clement, M. G.; Triulzi, M. O.; Lazzaroni, A.; Chiara, O.
CORPORATE SOURCE: Ist. Fisiol. Vet. Biochim., Univ. Studi, Milan, Italy
SOURCE: Bollettino - Societa Italiana di Biologia Sperimentale (1980), 56(21), 2223-7
CODEN: BSIBAC; ISSN: 0037-8771
DOCUMENT TYPE: Journal
LANGUAGE: Italian
AB Infusion of 18,19,20-trinor-17-cyclohexyl-13,14-dihydro PGF2.alpha. Me ester (I) [77204-95-6] (10 .mu.g/kg/min for 5 min) into pigs increased respiratory resistance and decreased lung compliance. These changes were apparently due to an increase in bronchomotor tonus, as they were nearly abolished by vagosympathectomy. Like endogenous prostaglandin, the synthetic analog I thus causes a reflex bronchoconstriction, with perhaps an addnl. slight local or pulmonary-congestant action.
IT **77204-95-6**
RL: BIOL (Biological study)
(animal breathing response to)
RN 77204-95-6 CAPLUS
CN 5-Heptenoic acid, 7-[2-(5-cyclohexyl-3-hydroxypentyl)-3,5-dihydroxycyclopentyl]-, methyl ester, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

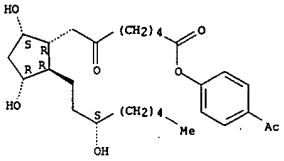


L18 ANSWER 53 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:638924 CAPLUS
DOCUMENT NUMBER: 93:238924
TITLE: Esters of prostaglandin-type compounds
INVENTOR(S): Sih, John Charles
PATENT ASSIGNEE(S): Upjohn Co., USA
SOURCE: Eur. Pat. Appl., 64 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

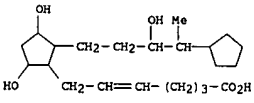
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 9869	A3	19800625	EP 1979-301635	19790813
EP 9869	A2	19800416		
R: BE, CH, DE, FR, GB, IT, NL				
US 4180657	A	19791225	US 1978-933329	19780814

PRIORITY APPLN. INFO.: US 1978-933329 19780814
AB A series of prostacyclin ester analogs, such as I and II, was prepd. conventionally from the appropriate prostaglandin analogs.
IT **75579-37-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 75579-37-2 CAPLUS
CN Prostan-1-oic acid, 9,11,15-trihydroxy-6-oxo-, 4-acetylphenyl ester, (9.alpha.,11.alpha.,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



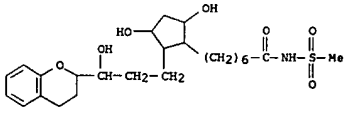
L18 ANSWER 54 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1979:99134 CAPLUS
DOCUMENT NUMBER: 90:99134
TITLE: Studies on 15-hydroxyprostaglandin dehydrogenase with various prostaglandin analogs
AUTHOR(S): Ohno, Hiroyuki; Morikawa, Yukiko; Hirata, Fumio
CORPORATE SOURCE: Res. Inst., Ono Pharm. Co., Ltd., Osaka, Japan
SOURCE: Journal of Biochemistry (Tokyo, Japan) (1978), 84(6), 1485-94
CODEN: JOBIAO; ISSN: 0021-924X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The NAD-linked 15-hydroxyprostaglandin dehydrogenase (I) of swine lung was purified to a high specific activity by affinity chromatog. on prostaglandin (PG)- and NAD-Sepharose. The affinities of the enzyme for 83 synthetic analogs of PGA, E, F, and I and their inhibitory effects on the enzymic reaction were examd. The modification of the alkyl side chain of PG, particularly at C-15 or C-16, reduced the affinity of the enzyme for these PG analogs. Furthermore, 14-methyl-13,14-dihydro-PGE1 and 16-cyclopentyl-.omega.-trinor-15-epi-PGE2 were potent inhibitors of I.
IT **54358-37-1**
RL: BIOL (Biological study)
(15-hydroxyprostaglandin dehydrogenase inhibition by, kinetics of)
RN 54358-37-1 CAPLUS
CN 5-Heptenoic acid, 7-[2-(4-cyclopentyl-3-hydroxypentyl)-3,5-dihydroxycyclopentyl]- (9CI) (CA INDEX NAME)



L18 ANSWER 55 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:406001 CAPLUS
DOCUMENT NUMBER: 89:6001
TITLE: 2-Substituted arylheterocyclic .omega.-pentanorprostaglandins
INVENTOR(S): Johnson, Michael Ross; Hess, Hans Jurgen Ernst; Bindra, Jasjit Singh
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Ger. Offen., 90 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2737808	A1	19780316	DE 1977-2737808	19770822
JP 53028159	A2	19780316	JP 1977-102180	19770825
JP 55039554	B4	19801013		
GB 1542569	A	19790321	GB 1977-35751	19770825
BE 858147	A1	19780227	BE 1977-180460	19770826
DK 7703794	A	19780228	DK 1977-3794	19770826
NL 7709444	A	19780301	NL 1977-9444	19770826
FR 2362849	A1	19780324	FR 1977-26092	19770826
FR 2362849	B1	19800711		

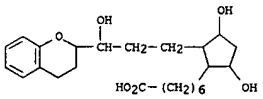
PRIORITY APPLN. INFO.: US 1976-718107 19760827
AB A series of title prostaglandins and their intermediates, e.g., I and II, was prepd. by incorporating III and IV (both the racemic and both optically active forms were used) into conventional syntheses.
IT **66602-32-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 66602-32-2 CAPLUS
CN Cyclopentaneheptanamide, 2-[3-(3,4-dihydro-2H-1-benzopyran-2-yl)-3-hydroxypropyl]-3,5-dihydroxy-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



L18 ANSWER 56 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:405998 CAPLUS
DOCUMENT NUMBER: 89:5998
TITLE: Cl-p-Biphenyl esters of .omega.-pentanorprostaglandins
INVENTOR(S): Johnson, Michael Ross; Hess, Hans Juergen Ernst; Bindra, Jasjit Singh
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Ger. Offen., 90 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2737807	A1	19780309	DE 1977-2737807	19770822
NL 7709386	A	19780301	NL 1977-9386	19770825
GB 1545411	A	19790510	GB 1977-35750	19770825
BE 858146	A1	19780227	BE 1977-180459	19770826
DK 7703792	A	19780228	DK 1977-3792	19770826
JP 53028160	A2	19780316	JP 1977-102509	19770826
FR 2362848	A1	19780324	FR 1977-26141	19770826
FR 2362848	B1	19800711		

PRIORITY APPLN. INFO.: US 1976-718138 19760827
AB 15-Dihydrobenzofuranyl or -pyranylpentanor PGE and PGF analogs and their 4-PhC6H4 esters, e.g. I and II, in which the heterocycles were introduced in both racemic and optically active forms, were prepd. by appropriate modifications of conventional methods.
IT **66599-03-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 66599-03-9 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[3-(3,4-dihydro-2H-1-benzopyran-2-yl)-3-hydroxypropyl]-3,5-dihydroxy- (9CI) (CA INDEX NAME)

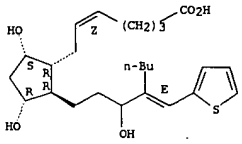


L18 ANSWER 57 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:62048 CAPLUS
DOCUMENT NUMBER: 88:62048
TITLE: .omega.-Aryl-.omega.-polynorprostaglandin analogs
INVENTOR(S): Yankee, Ernest Warren
PATENT ASSIGNEE(S): Upjohn Co., USA
SOURCE: Ger. Offen., 89 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2719975	A1	19771124	DE 1977-2719975	19770504
GB 1554030	A	19791017	GB 1977-18334	19770502
FR 2351100	A1	19771209	FR 1977-14111	19770509
FR 2351100	B1	19820226		
JP 52136150	A2	19771114	JP 1977-52702	19770510
US 4128725	A	19781205	US 1977-824871	19770815

PRIORITY APPLN. INFO.: US 1976-684637 19760510
AB A wide variety of title compds. was claimed in 53 claims. I was prepd. from II conventionally.
IT **65478-22-0P**
<------User Break------>
AB Title compds. I and II were prepd. by treating III [Z = O, (.alpha.-OH, .beta.-H); R, R1 = H, OH-protecting groups easily removable under acidic conditions] with acids. I has prostaglandin-like activity (no data). Thus, 65 mg III (Z = .alpha.-OH, .beta.-H; R = R1 = tetrahydropyran-2-yl) was treated with AcOH-H2O-THF (19:11:3 by vol.) 2 h at 37.degree. to give 14 mg I.
IT **64964-58-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(lactonization of)
RN 64964-58-5 CAPLUS
CN Prost-5-en-1-oic acid, 9,11,15-trihydroxy-16-(2-thienylmethylene)-, (5Z,9.alpha.,11.alpha.,16E)- (9CI) (CA INDEX NAME)

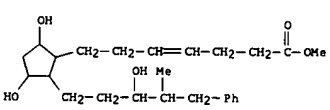
Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 60 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:6408 CAPLUS
DOCUMENT NUMBER: 88:6408
TITLE: Prostane derivative
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd., UK
SOURCE: Neth. Appl., 39 pp.
CODEN: NAXXAN
DOCUMENT TYPE: Patent
LANGUAGE: Dutch
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 7609223	A	19770224	NL 1976-9223	19760819
GB 1516414	A	19780705	GB 1975-34969	19750822
ZA 7604646	A	19770727	ZA 1976-4646	19760802
NO 7602708	A	19770223	NO 1976-2708	19760804
AU 7616545	A1	19780209	AU 1976-16545	19760804
AU 510107	B2	19800605		
IN 144651	A	19780603	IN 1976-CA1390	19760804
US 4241215	A	19801223	US 1976-713505	19760811
DK 7603723	A	19770223	DK 1976-3723	19760818
SE 7609235	A	19770223	SE 1976-9235	19760819
SE 424860	B	19820816		
SE 424860	C	19821125		
CA 1088932	A1	19801104	CA 1976-259466	19760819
BE 845404	A1	19770221	BE 1976-169985	19760820
FI 7602386	A	19770223	FI 1976-2386	19760820
FR 2322587	A1	19770401	FR 1976-25397	19760820
FR 2322587	B1	19800328		
DD 125481	C	19770420	DD 1976-194423	19760820
ES 450866	A1	19771201	ES 1976-450866	19760820
AT 7606200	A	19790415	AT 1976-6200	19760820
AT 353431	B	19791112		
JP 52025746	A2	19770225	JP 1976-100474	19760823
ES 461837	A1	19780516	ES 1977-461837	19770823
US 4306095	A	19811215	US 1979-95306	19791119

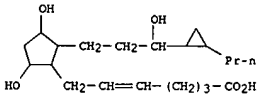
PRIORITY APPLN. INFO.: GB 1975-34969 19750822
AB A no. of polynor-4,13-prostadienoic acid derivs. (e.g., I, II) were prepd. by modifications of conventional methods.
IT **64775-36-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 64775-36-6 CAPLUS
CN 4-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-4-methyl-5-phenylpentyl)cyclopentyl]-, methyl ester (9CI) (CA INDEX NAME)



L18 ANSWER 61 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:6396 CAPLUS
DOCUMENT NUMBER: 88:6396
TITLE: (16,17-Methylene)prostaglandin derivatives
INVENTOR(S): Inukai, Noriyoshi; Murakami, Masuo; Iwamoto, Hidenori; Yanagisawa, Isao; Tamura, Junya; Ishii, Yoshio; Takagi, Norikazu; Tomioka, Kenichi
PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52083634	A2	19770712	JP 1976-276	19760101

PRIORITY APPLN. INFO.: JP 1976-276 19760101
AB The title derivs. I and II were prepd. by deprotection of OH-protected analogs. Thus, a mixt. of 86.1 mg 11.alpha.,15(S)-bis(tert-butyldimethylsilyloxy)-9.alpha.-hydroxy-16,17-methylene-5-cis-13-trans-prostadienoic acid and 264.9 mg Bu4N+F- in THF was allowed to stand 48 h at room temp. to give 37.4 mg 15-S-II.
IT **63922-26-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 63922-26-9 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-3-(2-propylcyclopropyl)propyl]cyclopentyl]- (9CI) (CA INDEX NAME)



L18 ANSWER 62 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1977:551771 CAPLUS
DOCUMENT NUMBER: 87:151771
TITLE: PGD2 compounds
INVENTOR(S): Bundy, Gordon L.
PATENT ASSIGNEE(S): Upjohn Co., USA
SOURCE: U.S., 97 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4033989	A	19770705	US 1975-614243	19750917
GB 1554028	A	19791017	GB 1977-44458	19760623
AU 7617469	A1	19780309	AU 1976-17469	19760903
AU 502731	B2	19790809		
CH 626338	A	19811113	CH 1976-11483	19760909
DE 2641091	A1	19770728	DE 1976-2641091	19760913
NL 7610184	A	19770321	NL 1976-10184	19760914
JP 52042856	A2	19770404	JP 1976-110029	19760916
JP 60013035	B4	19850404		
FR 2326184	A1	19770429	FR 1976-27912	19760916
US 4088819	A	19780509	US 1977-786707	19770411
US 4089878	A	19780516	US 1977-786709	19770411
US 4093813	A	19780606	US 1977-786713	19770411
US 4096339	A	19780620	US 1977-786717	19770411
US 4097506	A	19780627	US 1977-786700	19770411
US 4097505	A	19780627	US 1977-786701	19770411
US 4097508	A	19780627	US 1977-786714	19770411
US 4105682	A	19780808	US 1977-786699	19770411
US 4119663	A	19781010	US 1977-786716	19770411
US 4156087	A	19790522	US 1978-921632	19780703
US 4171319	A	19791016	US 1978-923767	19780712

PRIORITY APPLN. INFO.: US 1975-614242 19750917
US 1975-614243 19750917
US 1975-614244 19750917
GB 1976-26212 19760623
US 1977-786712 19770411
US 1977-786715 19770411

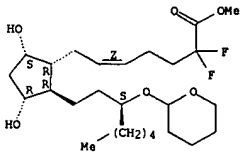
AB PGF2.alpha. compds. were oxidized to six PGD compds. I (Z = trans-CH:CH, CH2CH2; R = H, Me; R1 = H, Me; R2 = H, Me; n = 1, 3; R3 = H, F; R4 = H, Me); similarly prepd. were four 4,5-didehydroprostaglandin D1 derivs. II (R = H, Me; R1 = H, Me; R2 = H, Me). Dehydration of two I yielded 9-deoxy-9,10-didehydro derivs. III (Z, R, R1 given): trans-CH:CH, H, H; CH2CH2, F, Me.

IT **64222-97-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and oxidn. of)

RN 64222-97-5 CAPLUS

CN Prost-5-en-1-oic acid, 2,2-difluoro-9,11-dihydroxy-15-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, (5Z,9.alpha.,11.alpha.,15S)- (9CI) (CA INDEX NAME)

L18 ANSWER 62 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)
Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 63 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1977:534045 CAPLUS
DOCUMENT NUMBER: 87:134045
TITLE: Substituted .omega.-pentanorprostaglandins
INVENTOR(S): Bindra, Jasjit S.; Johnson, Michael R.
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: U.S., 18 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4024179	A	19770517	US 1973-413708	19731107
DD 118856	C	19760320	DD 1972-182498	19721107
SE 448992	B	19870330	SE 1973-14686	19731029
SE 448992	C	19870709		
BE 806995	A1	19740507	BE 1973-1005485	19731107
FR 2205335	A1	19740531	FR 1973-39544	19731107
JP 49093342	A2	19740905	JP 1973-125272	19731107
JP 54016491	B4	19790622		
ZA 7308554	A	19740925	ZA 1973-8554	19731107
DD 109212	C	19741020	DD 1973-174504	19731107
AU 7362247	A1	19750508	AU 1973-62247	19731107
DD 117233	C	19760105	DD 1973-182497	19731107
ES 420325	A1	19760416	ES 1973-420325	19731107
DD 119411	C	19760420	DD 1973-182499	19731107
IN 139384	A	19760612	IN 1973-CA2448	19731107
GB 1456512	A	19761124	GB 1973-51758	19731107
GB 1456514	A	19761124	GB 1976-22858	19731107
GB 1456513	A	19761124	GB 1976-23950	19731107
CH 597176	A	19780331	CH 1973-15639	19731107
IL 43589	A1	19800131	IL 1973-43589	19731107
IL 50307	A1	19800131	IL 1973-50307	19731107
NL 164273	B	19800715	NL 1973-15263	19731107
NL 164273	C	19801215		
CA 1085831	A1	19800916	CA 1973-185274	19731107
FI 60389	B	19810930	FI 1973-3443	19731107
FI 60389	C	19820111		
AT 7309369	A	19811015	AT 1973-9369	19731107
AT 367034	B	19820525		
DK 144247	B	19820125	DK 1973-6010	19731107
DK 144247	C	19820712		
NO 147836	B	19830314	NO 1973-4288	19731107
NO 147836	C	19830622		
HU 172703	P	19781128	HU 1972-PI399	19731108
HU 173507	P	19790528	HU 1973-PI451	19731108
NO 148998	B	19831017	NO 1974-3493	19740926
NO 148998	C	19840125		
ES 433047	A1	19761101	ES 1974-433047	19741218
ES 433046	A1	19770616	ES 1974-433046	19741218
NO 7500535	A	19740509	NO 1975-535	19750218
NO 149139	B	19831114		
NO 149139	C	19840229		
SU 667141	D	19790605	SU 1975-2106791	19750218
SU 893130	A3	19811223	SU 1975-2106125	19750219
FR 2279729	A1	19760220	FR 1975-26059	19750822
FR 2283146	A1	19760326	FR 1975-26060	19750822
FR 2283146	B1	19810619		

L18 ANSWER 63 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

AT 353285	B	19791112	AT 1976-5446	19760723
AT 7605446	A	19790415		
AT 7605445	A	19800615	AT 1976-5445	19760723
AT 360672	B	19810126		
JP 52053841	A2	19770430	JP 1976-123737	19761015
JP 52057147	A2	19770511	JP 1976-123738	19761015
SE 7700717	A	19770124	SE 1977-717	19770124
SE 436278	B	19841126		
SE 436278	C	19850307		
SE 7700716	A	19770124	SE 1977-716	19770124
SE 445111	B	19860602		
SE 445111	C	19860911		
SE 7700718	A	19770124	SE 1977-718	19770124
SE 431756	B	19840227		
SE 431756	C	19840607		
SU 745362	D	19800630	SU 1978-2629453	19780727
DK 7804497	A	19781010	DK 1978-4497	19781010
US 4244887	A	19810113	US 1979-68211	19790820
NL 7907232	A	19800229	NL 1979-7232	19790928
NL 176666	B	19841217		
NL 176666	C	19850517		
NL 7907233	A	19800229	NL 1979-7233	19790928
NL 177112	B	19850301		
NL 177112	C	19850801		
CA 1088930	A2	19801104	CA 1979-341897	19791213
CA 1088931	A2	19801104	CA 1979-341898	19791213

PRIORITY APPLN. INFO.: US 1972-304813 19721108
AT 1973-9369 19731107
CA 1973-185274 19731107
DK 1973-6010 19731107
IL 1973-43589 19731107
NL 1973-15263 19731107
NO 1973-4288 19731107
US 1973-413708 19731107
US 1975-602479 19750806
CA 1977-185274 19770711
CA 1977-341897 19770711
CA 1977-341898 19770711

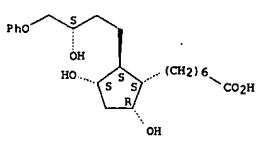
AB A series of tetranorprostaglandin analogs, e.g. I and II, were prepd. by modifications of known syntheses.

IT **54347-92-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 54347-92-1 CAPLUS

CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-(3-hydroxy-4-phenoxybutyl)-, [1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L18 ANSWER 63 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

L18 ANSWER 64 OF 95 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1977:170949 CAPLUS
DOCUMENT NUMBER: 86:170949
TITLE: 13,14-Dihydro-15-substituted-.omega.-pentanorprostaglandins of the two series
INVENTOR(S): Hess, Hans Jurgen E.; Johnson, Michael R.; Bindra, Jasjit S.; Schaaf, Thomas K.
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: U.S., 19 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4011262	A	19770308	US 1974-485431	19740703
IL 50309	A1	19791031	IL 1976-50309	19760819
AT 352920	B	19791010	AT 1976-9874	19761230
AT 7609874	A	19790315		
AT 7609876	A	19800415	AT 1976-9876	19761230
AT 359659	B	19801125		
AT 7609872	A	19810715	AT 1976-9872	19761230
AT 366060	B	19820310		
CS 201028	P	19801031	CS 1978-5027	19780728
CS 201029	P	19801031	CS 1978-5028	19780728
CS 201030	P	19801031	CS 1978-5029	19780728
FI 7900072	A	19790110	FI 1979-72	19790110
FI 7900071	A	19790110	FI 1979-71	19790110
FI 7900070	A	19790110	FI 1979-70	19790110
DK 7901371	A	19790403	DK 1979-1371	19790403
DK 7901374	A	19790403	DK 1979-1374	19790403

PRIORITY APPLN. INFO.: US 1972-271220 19720713
US 1973-425519 19731217
FI 1972-2163 19730705
FI 1973-2162 19730705
IL 1973-42691 19730709
CS 1973-4994 19730711
DK 1973-3871 19730712
AT 1973-6207 19730713

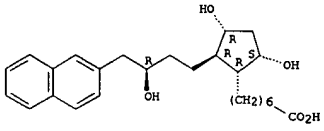
AB I [Ar = Ph (II), 2-naphthyl, 3,4-(MeO)2C6H3] were prepd. from III by modification of conventional methods. II had antihypertensive and bronchodilator activity.

IT **62524-82-7P 62524-83-8P 62524-86-1P**
62524-87-2P 62524-88-3P 62561-37-9P
62561-38-0P 62561-40-4P 62561-41-5P
62561-42-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 62524-82-7 CAPLUS
CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-[3-hydroxy-4-(2-naphthalenyl)butyl]-, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

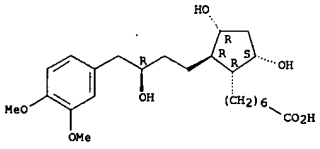
Absolute stereochemistry.

L18 ANSWER 64 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



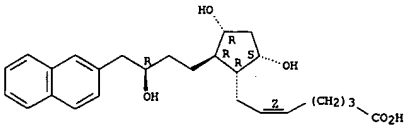
RN 62524-83-8 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[4-(3,4-dimethoxyphenyl)-3-hydroxybutyl]-3,5-dihydroxy-, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 62524-86-1 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-4-(2-naphthalenyl)butyl]cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

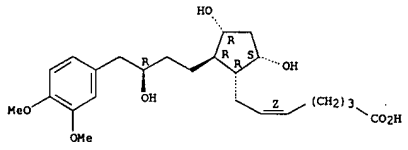
Absolute stereochemistry.
Double bond geometry as shown.



RN 62524-87-2 CAPLUS
CN 5-Heptenoic acid, 7-[2-[4-(3,4-dimethoxyphenyl)-3-hydroxybutyl]-3,5-dihydroxycyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

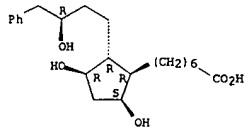
Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 64 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



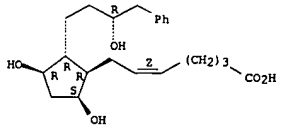
RN 62524-88-3 CAPLUS
CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-(3-hydroxy-4-phenylbutyl)-, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 62561-37-9 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-4-phenylbutyl)cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

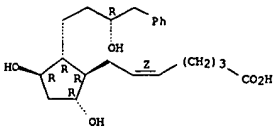
Absolute stereochemistry.
Double bond geometry as shown.



RN 62561-38-0 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-4-phenylbutyl)cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.beta.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 64 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 62561-40-4 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-4-(2-naphthalenyl)]cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.beta.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   332.48     794.03

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -46.87     -47.52

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STRUCTURE FILE UPDATES:   28 FEB 2003  HIGHEST RN 496269-39-7
DICTIONARY FILE UPDATES:  28 FEB 2003  HIGHEST RN 496269-39-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

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  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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L3           1 S L1 FULL

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L5           1 S L3
L6           0 S L5 NOT L4

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L8           0 S L7
L9           4 S L7 FULL

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L12            1 S L9
L13            0 S L12 NOT L10

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L15            9 S L14
L16          212 S L14 FULL

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L17          299 S L16
L18           95 S L17 NOT PY>=1999

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L19     STRUCTURE UPLOADED

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FULL SUBSET SCREEN SEARCH COMPLETED -    212 TO ITERATE

100.0% PROCESSED     212 ITERATIONS                          41 ANSWERS
SEARCH TIME: 00.00.01

L20           41 SEA SUB=L16 SSS FUL L19

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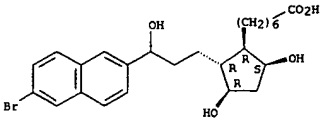
L20 41 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Cyclopentaneheptanoic acid, 2-[3-(6-bromo-2-naphthalenyl)-3-hydroxypropyl]-3,5-dihydroxy-, (1R,2R,3R,5S)- (9CI)
MF C25 H33 Br O5

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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FULL ESTIMATED COST                                    35.70     829.73

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00     -47.52

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FILE COVERS 1907 - 3 Mar 2003  VOL 138 ISS 10
FILE LAST UPDATED: 2 Mar 2003  (20030302/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


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L21         22 L20

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L22         13 L21 NOT PY>=2000

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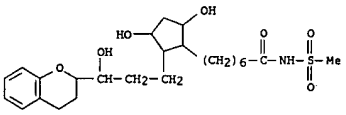
L22 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:406001 CAPLUS
DOCUMENT NUMBER: 89:6001
TITLE: 2-Substituted arylheterocyclic .omega.-pentanorprostaglandins
INVENTOR(S): Johnson, Michael Ross; Hess, Hans Jurgen Ernst; Bindra, Jasjit Singh
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Ger. Offen., 90 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2737808	A1	19780316	DE 1977-2737808	19770822
JP 53028159	A2	19780316	JP 1977-102180	19770825
JP 55039554	B4	19801013		
GB 1542569	A	19790321	GB 1977-35751	19770825
BE 858147	A1	19780227	BE 1977-180460	19770826
DK 7703794	A	19780228	DK 1977-3794	19770826
NL 7709444	A	19780301	NL 1977-9444	19770826
FR 2362849	A1	19780324	FR 1977-26092	19770826
FR 2362849	B1	19800711		

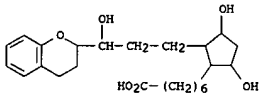
PRIORITY APPLN. INFO.: US 1976-718107 19760827
AB A series of title prostaglandins and their intermediates, e.g., I and II, was prepd. by incorporating III and IV (both the racemic and both optically active forms were used) into conventional syntheses.
IT **66602-32-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 66602-32-2 CAPLUS
CN Cyclopentaneheptanamide, 2-[3-(3,4-dihydro-2H-1-benzopyran-2-yl)-3-hydroxypropyl]-3,5-dihydroxy-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:405998 CAPLUS
DOCUMENT NUMBER: 89:5998
TITLE: Cl-p-Biphenyl esters of .omega.-pentanorprostaglandins
INVENTOR(S): Johnson, Michael Ross; Hess, Hans Juergen Ernst; Bindra, Jasjit Singh
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Ger. Offen., 90 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2737807	A1	19780309	DE 1977-2737807	19770822
NL 7709386	A	19780301	NL 1977-9386	19770825
GB 1545411	A	19790510	GB 1977-35750	19770825
BE 858146	A1	19780227	BE 1977-180459	19770826
DK 7703792	A	19780228	DK 1977-3792	19770826
JP 53028160	A2	19780316	JP 1977-102509	19770826
FR 2362848	A1	19780324	FR 1977-26141	19770826
FR 2362848	B1	19800711		

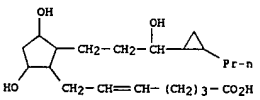
PRIORITY APPLN. INFO.: US 1976-718138 19760827
AB 15-Dihydrobenzofuranyl or -pyranylpentanor PGE and PGF analogs and their 4-PhC6H4 esters, e.g. I and II, in which the heterocycles were introduced in both racemic and optically active forms, were prepd. by appropriate modifications of conventional methods.
IT **66599-03-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 66599-03-9 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[3-(3,4-dihydro-2H-1-benzopyran-2-yl)-3-hydroxypropyl]-3,5-dihydroxy- (9CI) (CA INDEX NAME)



L22 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:37321 CAPLUS
DOCUMENT NUMBER: 88:37321
TITLE: 16,17-Methyleneprostaglandin derivatives
INVENTOR(S): Inukai, Noriyoshi; Murakami, Masuo; Iwamoto, Hidenori; Yanagisawa, Isao; Tamura, Toshinari; Ishii, Yoshio; Takagi, Tokuichi; Tomioka, Kenichi
PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52027752	A2	19770302	JP 1975-104450	19750828

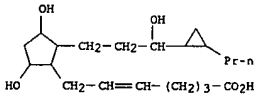
PRIORITY APPLN. INFO.: JP 1975-104450 19750828
AB The title prostaglandins I (R = H) and their 13,14-dihydro analogs were prepd. Stirring II (X = O) with di-Me [2-(2-propylcyclopropyl)-2-oxoethyl]phosphonate and NaH 1 h at room temp. gave II [X = 2-(2-propylcyclopropyl)-2-oxoethylidene], whose redn. with NaBH4 and ZnCl2 at room temp. 2 h in Et2O-THF gave III (Z = O, R1 = H, R2 = 4-PhC6H4CO) (IV) its 13,14-dihydro analog. 15 S-IV was deprotected and then treated with Me3CSiMe2Cl and imidazole to give III (Z = O, R1 = R2 = SiMe2CMe3) whose redn. with (Me2CHCH2)2AlH gave III (Z = H, OH, R1 = R2 = SiMe2CMe3) (V). Wittig reaction of V with HO2C(CH2)4PPh3Br gave 15S-I (R = SiMe2CMe3) which was deblocked by Bu4NF in THF to give 15S-I (R = H).
IT **63922-26-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 63922-26-9 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-3-(2-propylcyclopropyl)propyl]cyclopentyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:6396 CAPLUS
DOCUMENT NUMBER: 88:6396
TITLE: (16,17-Methylene)prostaglandin derivatives
INVENTOR(S): Inukai, Noriyoshi; Murakami, Masuo; Iwamoto, Hidenori; Yanagisawa, Isao; Tamura, Junya; Ishii, Yoshio; Takagi, Norikazu; Tomioka, Kenichi
PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52083634	A2	19770712	JP 1976-276	19760101

PRIORITY APPLN. INFO.: JP 1976-276 19760101
AB The title derivs. I and II were prepd. by deprotection of OH-protected analogs. Thus, a mixt. of 86.1 mg 11.alpha.,15(S)-bis(tert-butyldimethylsilyloxy)-9.alpha.-hydroxy-16,17-methylene-5-cis-13-trans-prostadienoic acid and 264.9 mg Bu4N+F- in THF was allowed to stand 48 h at room temp. to give 37.4 mg 15-S-II.
IT **63922-26-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 63922-26-9 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-3-(2-propylcyclopropyl)propyl]cyclopentyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1977:155250 CAPLUS
DOCUMENT NUMBER: 86:155250
TITLE: Prostane derivatives
INVENTOR(S): Marsham, Peter R.
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd., UK
SOURCE: Ger. Offen., 50 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2626287	A1	19761230	DE 1976-2626287	19760611
CA 1063603	A1	19791002	CA 1976-253269	19760525
ZA 7603139	A	19770427	ZA 1976-3139	19760526
AU 504692	B2	19791025	AU 1976-14462	19760531
SE 7606584	A	19761214	SE 1976-6584	19760610
NL 7606268	A	19761215	NL 1976-6268	19760610
BE 842892	A1	19761213	BE 1976-167879	19760611
DK 7602612	A	19761214	DK 1976-2612	19760611
FR 2313920	A1	19770107	FR 1976-17886	19760611
FR 2313920	B1	19781117		
JP 52005744	A2	19770117	JP 1976-69651	19760614
DD 125862	C	19770525	DD 1976-193363	19760614
US 4109015	A	19780822	US 1978-872647	19780126

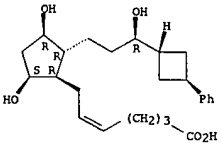
PRIORITY APPLN. INFO.: GB 1975-25378 19750613
US 1976-691297 19760601

AB Cycloaliph. prostaglandin analogs (e.g., I) were prepd. by modifications of conventional syntheses, involving, e.g., condensation of building blocks such as II with III.

IT **62485-50-1P 62505-38-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 62485-50-1 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-3-(3-phenylcyclobutyl)propyl]cyclopentyl]-, [1R-[1.alpha.,2.beta.(3R*(trans)],3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

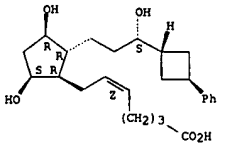
Absolute stereochemistry.
Double bond geometry unknown.



RN 62505-38-8 CAPLUS

L22 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-3-(3-phenylcyclobutyl]propyl]cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.[S*(trans)],3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L22 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1977:89839 CAPLUS
DOCUMENT NUMBER: 86:89839
TITLE: 1,3-Benzodioxaneprostanoic acid derivatives
INVENTOR(S): Vorbrueggen, Helmut; Schwarz, Norbert; Loge, Olaf; Elger, Walter
PATENT ASSIGNEE(S): Schering A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 96 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2508826	A1	19760909	DE 1975-2508826	19750227
DK 7600399	A	19760828	DK 1976-399	19760130
AU 7610998	A1	19770818	AU 1976-10998	19760211
CH 625236	A	19810915	CH 1976-2149	19760220
GB 1546442	A	19790411	GB 1976-7003	19760223
NL 7601847	A	19760831	NL 1976-1847	19760224
JP 51125393	A2	19761101	JP 1976-19811	19760224
SE 7602500	A	19760830	SE 1976-2500	19760226
SE 424552	B	19820726		
SE 424552	C	19821104		
AT 351188	B	19790710	AT 1976-1432	19760226
AT 7601432	A	19781215		
BE 839027	A1	19760827	BE 1976-164720	19760227
FR 2302089	A1	19760924	FR 1976-5547	19760227
FR 2302089	B1	19800613		
CA 1087178	A1	19801007	CA 1976-246701	19760227
DK 7702869	A	19770628	DK 1977-2869	19770628
US 4217360	A	19800812	US 1979-2268	19790110

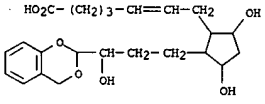
PRIORITY APPLN. INFO.: DE 1975-2508826 19750227
DK 1976-399 19760130
US 1976-659130 19760218
US 1977-800126 19770524
US 1978-888059 19780320
CA 1979-246701 19790822

AB Prostaglandin analogs I [RR1 = CH(OH)CH2CHOH, COCH2CHOH, COCH:CH, CH(OH)CH2CO; X = cis-CH:CH, CH2CH2; X1 = trans-CH:CH, CH2CH2] were prepd. Thus, saligenin was condensed with Cl2CHCO2H,to give Me 2-benzodioxancarboxylate , which was treated with MePPh3Br, the resulting phosphorane treated with aldehyde II, the two oxo groups of th resulting III reduced with cleavage of the benzoyl group, and the resulting thiol treated with HO2C(CH2)4PPh3Br, followed by esterification to give IV.

IT **61572-76-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and esterification of)

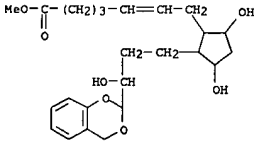
RN 61572-76-7 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(4H-1,3-benzodioxin-2-yl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]- (9CI) (CA INDEX NAME)

L22 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)

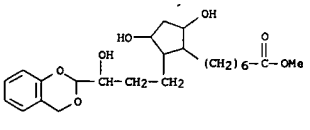


IT **61572-77-8P 61572-83-6P 61616-61-3P**
61616-62-4P 61616-63-5P 61616-64-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 61572-77-8 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(4H-1,3-benzodioxin-2-yl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, methyl ester (9CI) (CA INDEX NAME)



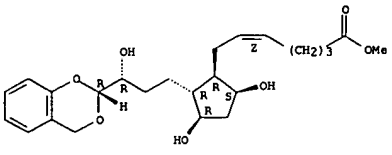
RN 61572-83-6 CAPLUS
CN Cyclopentanaheptanoic acid, 2-[3-(4H-1,3-benzodioxin-2-yl)-3-hydroxypropyl]-3,5-dihydroxy-, methyl ester (9CI) (CA INDEX NAME)



RN 61616-61-3 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(4H-1,3-benzodioxin-2-yl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, methyl ester, [1R-[1.alpha.(Z),2.beta.[R*(R*)],3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

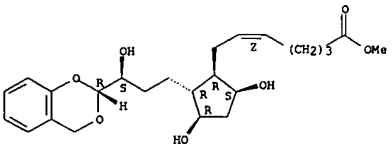
Absolute stereochemistry.
Double bond geometry as shown.

L22 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)



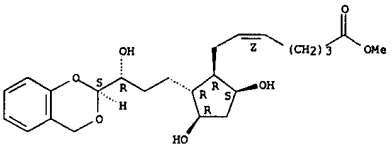
RN 61616-62-4 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(4H-1,3-benzodioxin-2-yl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, methyl ester, [1R-[1.alpha.(Z),2.beta.[S*(R*)],3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 61616-63-5 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(4H-1,3-benzodioxin-2-yl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, methyl ester, [1R-[1.alpha.(Z),2.beta.[R*(S*)],3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

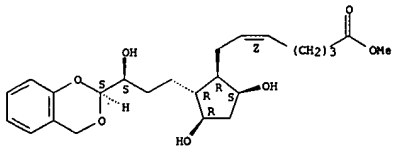
Absolute stereochemistry.
Double bond geometry as shown.



RN 61616-64-6 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(4H-1,3-benzodioxin-2-yl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, methyl ester, [1R-[1.alpha.(Z),2.beta.[S*(S*)],3.a

L22 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)
lpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L22 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1977:43262 CAPLUS
DOCUMENT NUMBER: 86:43262
TITLE: Prostaglandin analogs
INVENTOR(S): Hayashi, Masaki; Kori, Seiji; Miyake, Hajimu
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: Ger. Offen., 96 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2605584	A1	19760826	DE 1976-2605584	19760212
FR 2300557	A1	19760910	FR 1976-3772	19760211
FR 2300557	B1	19791005		
US 4128720	A	19781205	US 1976-657125	19760211
DK 7600568	A	19760815	DK 1976-568	19760212
NL 7601455	A	19760817	NL 1976-1455	19760212
ZA 7600830	A	19770126	ZA 1976-830	19760212
AU 7611069	A1	19770818	AU 1976-11069	19760212
BE 838582	A1	19760813	BE 1976-164338	19760213
JP 51110541	A2	19760930	JP 1976-14074	19760213

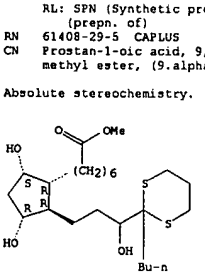
PRIORITY APPLN. INFO.: GB 1975-6385 19750214

AB Gem-bis(alkylthio)tetranoprostaglandins, e.g., I [R = H, R1 = Ph, R2 = Me, R1R2 = (CH2)3] and -prostaglandins, e.g., I (R = Bu), were prepd. from LiCR(SR1)(SR2) and aldehydes, e.g., II. II was prepd. by std. methods from III.

IT **61408-29-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 61408-29-5 CAPLUS
CN Prostan-1-oic acid, 9,11,15-trihydroxy-16,16-[1,3-propanediylbis(thio)]-, methyl ester, (9.alpha.,11.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1976:446078 CAPLUS
DOCUMENT NUMBER: 85:46078
TITLE: Prostaglandin analogs
INVENTOR(S): Johnson, Michael Ross; Hess, Hans J. E.; Schaaf, Thomas K.; Bindra, Jasjit S.
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Ger. Offen., 197 pp. Division of Ger. Offen. 2,334,945.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2365767	A1	19760415	DE 1973-2365767	19730710
ES 416865	A1	19760301	ES 1973-416865	19730703
NO 143741	B	19801229	NO 1973-2724	19730703
NO 143741	C	19810408		
AU 7357784	A1	19750109	AU 1973-57784	19730705
FI 57583	B	19800530	FI 1973-2162	19730705
FI 57583	C	19800910		
IN 138789	A	19760403	IN 1973-CA1575	19730706
IL 42691	A1	19790725	IL 1973-42691	19730709
CS 201027	P	19801031	CS 1973-4994	19730711
BE 802231	A1	19740114	BE 1973-1005234	19730712
DD 109210	C	19741020	DD 1973-172243	19730712
DD 116459	C	19751120	DD 1973-180811	19730712
CH 593275	A	19771130	CH 1977-6338	19730712
CH 593254	A	19771130	CH 1973-10206	19730712
CH 593963	A	19771230	CH 1976-7060	19730712
CH 593991	A	19771230	CH 1976-7061	19730712
CH 593932	A	19771230	CH 1976-7062	19730712
CA 1041495	A1	19781031	CA 1973-176270	19730712
SU 644384	D	19790125	SU 1973-1948945	19730712
NL 7309792	A	19740115	NL 1973-9792	19730713
FR 2192834	A1	19740215	FR 1973-25835	19730713
FR 2192834	B1	19790406		
ZA 7304769	A	19740626	ZA 1973-4769	19730713
JP 49092053	A2	19740903	JP 1973-79214	19730713
JP 52041257	B4	19771017		
GB 1446341	A	19760818	GB 1973-31217	19730713
GB 1446343	A	19760818	GB 1976-14201	19730713
GB 1446344	A	19760818	GB 1976-14449	19730713
GB 1446342	A	19760818	GB 1976-13556	19730713
AT 7306201	A	19811015	AT 1973-6207	19730713
AT 367033	B	19820525		
NO 144830	B	19810810	NO 1974-3492	19740926
NO 144830	C	19811118		
ES 437039	A1	19770101	ES 1975-437039	19750426
ES 437037	A1	19770101	ES 1975-437037	19750426
ES 437038	A1	19770101	ES 1975-437038	19750426
SU 645563	D	19790130	SU 1975-2169008	19750905
SU 645564	D	19790130	SU 1975-2171155	19750911
IL 50309	A1	19791031	IL 1976-50309	19760819
JP 52093753	A2	19770806	JP 1976-140607	19761122
JP 52097958	A2	19770817	JP 1976-140605	19761122
JP 52122349	A2	19771014	JP 1976-140606	19761122
AT 352920	B	19791010	AT 1976-9874	19761230

L22 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)

AT 7609874	A	19790315		
AT 7609876	A	19800415	AT 1976-9876	19761230
AT 359659	B	19801125		
AT 7609872	A	19810715	AT 1976-9872	19761230
AT 366060	B	19820310		
SE 7705946	A	19770520	SE 1977-5946	19770520
SE 7705945	A	19770520	SE 1977-5945	19770520
SE 7705947	A	19770520	SE 1977-5947	19770520
FR 2361381	B1	19800425	FR 1977-30389	19771010
FR 2361381	A1	19780310		
FR 2361410	B1	19810529	FR 1977-30390	19771010
FR 2361410	A1	19780310		
CS 201028	P	19801031	CS 1978-5027	19780728
CS 201029	P	19801031	CS 1978-5028	19780728
CS 201030	P	19801031	CS 1978-5029	19780728
FI 7900072	A	19790110	FI 1979-72	19790110
FI 7900071	A	19790110	FI 1979-71	19790110
FI 7900070	A	19790110	FI 1979-70	19790110
DK 7901371	A	19790403	DK 1979-1371	19790403
DK 7901374	A	19790403	DK 1979-1374	19790403
AU 530243	B2	19830707	AU 1981-77496	19811113
AU 8177496	A1	19820211		

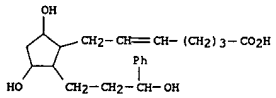
PRIORITY APPLN. INFO.: US 1972-271220 19720713
FI 1972-2163 19730705
FI 1973-2162 19730705
IL 1973-42691 19730709
CS 1973-4994 19730711
DK 1973-3871 19730712
AT 1973-6207 19730713

AB Bronchodilator, antihypertensive, and uterotropic prostaglandin derivs., including I (R = Ph, 2-thienyl, 2-thienylmethyl, C6H4Me-4, C6H4OMe-4, 2-furylmethyl) were prepd. Thus I (R = Ph) was obtained from PhCH2COCH2P(O)(OMe)2 and the lactone II in 8 steps.

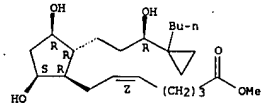
IT **59793-26-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 59793-26-9 CAPLUS

CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-3-phenylpropyl)cyclopentyl]- (9CI) (CA INDEX NAME)



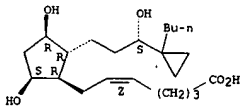
L22 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 59203-19-9 CAPLUS

CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclopropyl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

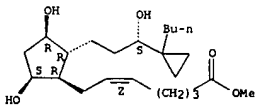
Absolute stereochemistry.
Double bond geometry as shown.



RN 59203-20-2 CAPLUS

CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclopropyl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, methyl ester, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L22 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1976:179753 CAPLUS
DOCUMENT NUMBER: 84:179753
TITLE: 16,16-Ethanoprostaglandins
INVENTOR(S): Hayashi, Masaki; Kori, Seiji; Iguchi, Sadahiko
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50157344	A2	19751219	JP 1975-32920	19750320

PRIORITY APPLN. INFO.: GB 1974-12459 19740320

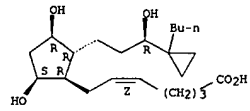
AB The title prostaglandins (I and II; X = CH2CH2 trans-CH:CH; R = H, C1-12 alkyl; R1 = C1-6 alkyl) were prepd. by reaction of 2-oxabicyclo[3.3.0]octanes (III) with Ph3P:CH(CH2)3CO2H followed by appropriate esterification, oxidn., and hydrolysis. Thus, a mixt. of NaH in Me2SO was agitated at 75.degree. and added to 7.6 g Ph3P+(CH2)4CO2H Br- in Me2SO at 20-30.degree., 6.8 g IV in Me2SO was added, and the mixt. was stirred 1 hr at room temp. to give 350 mg 16,16-ethanoprostaglandin F2.alpha.. Also prepd. were 16,16-ethanoprostaglandin F2.alpha. Me ester, 16,16-ethanoprostaglandin E2 Me ester, 16,16-ethano-13,14-dihydroprostaglandin F2.alpha. and its 15-epimer, 16,16-ethano-13,14-dihydroprostaglandin F2.alpha. Me ester and its 15-epimer, and 16,16-ethano-13,14-dihydroprostaglandin E2 Me ester and its 15-epimer.

IT **59160-00-8P 59160-01-9P 59203-19-9P**
59203-20-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 59160-00-8 CAPLUS

CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclopropyl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 59160-01-9 CAPLUS

CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclopropyl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, methyl ester, [1R-[1.alpha.(Z),2.beta.(3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L22 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1976:58751 CAPLUS
DOCUMENT NUMBER: 84:58751
TITLE: 15-Cyclobutyl prostaglandin analogs
INVENTOR(S): Kurono, Masayasu; Nakai, Hisao; Muryobayashi, Takashi
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: Ger. Offen., 97 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2510818	A1	19750918	DE 1975-2510818	19750312
DE 2510818	C2	19831117		
JP 50123647	A2	19750929	JP 1974-28544	19740314
JP 58023393	B4	19830514		
US 4045468	A	19770830	US 1975-557437	19750311
FR 2263756	A1	19751010	FR 1975-7898	19750313
FR 2263756	B1	19790209		
GB 1484210	A	19770901	GB 1975-10560	19750313
US 4117119	A	19780926	US 1977-794580	19770506

PRIORITY APPLN. INFO.: JP 1974-28544 19740314
US 1975-557437 19750311

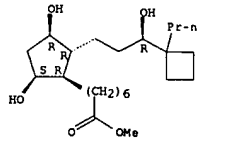
AB Approx. 70 16,16-propanoprostaglandin analogs and intermediates were prepd. by the Wittig reaction of (MeO)2P(O)CH2COR (R = 1-C3-6-alkylcyclobutyl) with cyclopentanecarboxaldehyde or 2-cyclopentene-1-carboxaldehyde derivs. The gastric juice secretion-inhibiting and bronchodilator properties of the products made them useful in the treatment of stomach ulcers and asthma.

IT **58148-70-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 58148-70-2 CAPLUS

CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)propyl]-, methyl ester, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1976:58747 CAPLUS
DOCUMENT NUMBER: 84:58747
TITLE: Prostanoic acid derivatives
INVENTOR(S): Skuballa, Werner; Raduechel, Bernd; Vorbrueggen, Helmut; Elger, Walter; Losert, Wolfgang; Loge, Olaf
PATENT ASSIGNEE(S): Schering A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 119 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2365101	A1	19750710	DE 1973-2365101	19731221
AU 7476586	A1	19760624	AU 1974-76586	19741218
SE 7416037	A	19750623	SE 1974-16037	19741219
DK 7406677	A	19750825	DK 1974-6677	19741219
US 4004020	A	19770118	US 1974-534483	19741219
BE 823692	A1	19750620	BE 1974-151796	19741220
JP 50095269	A2	19750729	JP 1974-147506	19741221
NL 7416806	A	19750624	NL 1974-16806	19741223
FR 2255062	A1	19750718	FR 1974-42585	19741223

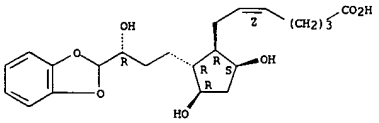
PRIORITY APPLN. INFO.: DE 1973-2365101 19731221

AB Prostaglandin derivs. (I, II, and III: R = CO2H or deriv. thereof, e.g., alkyl, Ph, or substituted phenyl ester; CH2OH or related ether; A = CH2CH2, trans-CH:CH; B = CH2CH2, cis-CH:CH; R1 .noteq. R2 = OH, H; R3 = H, C1-5 alkyl; R4, R5 = C1-10 alkyl, Ph, naphthyl, or substituted phenyl or naphthyl; or R4R5 = optionally substituted CH2CH2, CH2CH2CH2, o-phenylene, 2,3-naphthalenediyl, 1,8-naphthalenediyl), with physiol. activities similar to natural prostaglandins, were prepd. via schemes based on Wittig reactions of the lactone IV following standard procedures and reactions, e.g., protective-group chem., hydride redns., isomer sepns., etc.

IT **57984-91-5P 58116-47-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reactions of, in prostaglandin synthesis)

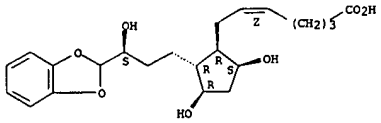
RN 57984-91-5 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(1,3-benzodioxol-2-yl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L22 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)
RN 58116-47-5 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(1,3-benzodioxol-2-yl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

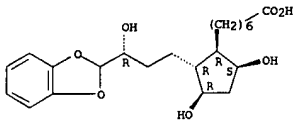
Absolute stereochemistry.
Double bond geometry as shown.



IT **57985-32-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 57985-32-7 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[3-(1,3-benzodioxol-2-yl)-3-hydroxypropyl]-3,5-dihydroxy-, [1R-[1.alpha.,2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1974:437323 CAPLUS
DOCUMENT NUMBER: 81:37323
TITLE: Prostanoic acid derivatives
INVENTOR(S): Bowler, Jean; Mallion, Keith B.; Richardson, Dora Nellie; Brown, Edward Douglas; Marsham, Peter R.
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
SOURCE: Ger. Offen., 86 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2348632	A1	19740411	DE 1973-2348632	19730927
GB 1428137	A	19760317	GB 1972-44652	19720927
US 3931206	A	19760106	US 1973-397327	19730914
ZA 7307357	A	19740828	ZA 1973-7357	19730917
CA 1037033	A1	19780822	CA 1973-181903	19730925
BE 805358	A1	19740326	BE 1973-136083	19730926
FR 2200014	A1	19740419	FR 1973-34504	19730926
SU 648088	D	19790215	SU 1973-1967274	19730926
NO 145380	B	19811130	NO 1973-3779	19730926
NO 145380	C	19820310		
SE 424859	B	19820816	SE 1973-13112	19730926
SE 424859	C	19821125		
DD 107899	C	19740820	DD 1973-173723	19730927
JP 49100071	A2	19740920	JP 1973-108876	19730927
ES 419143	A1	19760616	ES 1973-419143	19730927
AT 7308326	A	19770415	AT 1973-8326	19730927
AT 340610	B	19771227		
PL 96782	P	19780131	PL 1973-185293	19730927
CH 595341	A	19780215	CH 1976-13632	19730927
PL 97363	P	19780228	PL 1973-165466	19730927
CH 596164	A	19780228	CH 1976-13631	19730927
CH 597175	A	19780331	CH 1973-13865	19730927
AT 7501238	A	19770515	AT 1975-1238	19750219
AT 341122	B	19780125		
AT 7501237	A	19770515	AT 1975-1237	19750219
AT 341121	B	19780125		
AT 7501239	A	19770515	AT 1975-1239	19750219
AT 341123	B	19780125		
AT 7501241	A	19770715	AT 1975-1241	19750219
AT 7501240	A	19770715	AT 1975-1240	19750219
US 4000305	A	19761228	US 1975-618676	19751001
ES 444046	A1	19770416	ES 1976-444046	19760102
ES 444047	A1	19770416	ES 1976-444047	19760102
ES 444045	A1	19770416	ES 1976-444045	19760102
ES 444044	A1	19770416	ES 1976-444044	19760102
SE 7611316	A	19761012	SE 1976-11316	19761012
SE 7611315	A	19761012	SE 1976-11315	19761012

PRIORITY APPLN. INFO.: GB 1972-44652 19720927
US 1973-397327 19730914
AT 1973-8326 19730927

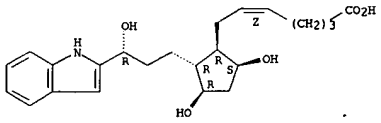
AB The prepn. of a no. of 16(or 17)-(heterocyclyloxy)-17,18,19,20-tetranor(or 18,19,20-trinor)-PGF2 derivs. and intermediates was described. The products are useful as contraceptives, for inducing labor or abortion, for controlling the menstrual cycle, as hypotensives, anticoagulants, and bronchodilators, as gastric secretion inhibitors, and as an additive for

L22 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)
storage of semen for artificial fertilization (no data).

IT **53233-50-4P 53233-84-4P 53276-07-6P**
53276-18-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

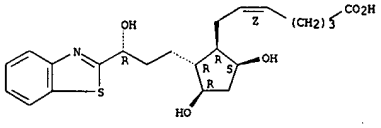
RN 53233-50-4 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-3-(1H-indol-2-yl)propyl]cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



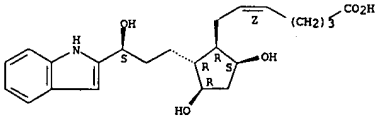
RN 53233-84-4 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-3-(2-benzothiazolyl)propyl]cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 53276-07-6 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-3-(1H-indol-2-yl)propyl]cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

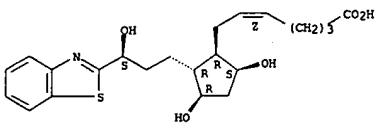
Absolute stereochemistry.
Double bond geometry as shown.



RN 53276-18-9 CAPLUS

L22 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)
CN 5-Heptenoic acid, 7-[2-[3-(2-benzothiazolyl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(5*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L22 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1974:95362 CAPLUS
DOCUMENT NUMBER: 80:95362
TITLE: Cyclopentane derivatives
INVENTOR(S): Bowler, Jean; Marsham, Peter R.
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
SOURCE: Ger. Offen., 48 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2322142	A1	19731122	DE 1973-2322142	19730502
DE 2322142	C2	19820701		
GB 1386146	A	19750305	GB 1972-20566	19720503
ZA 7302585	A	19740327	ZA 1973-2585	19730413
NL 7306030	A	19731106	NL 1973-6030	19730501
JP 49075558	A2	19740720	JP 1973-49611	19730502
JP 57040142	B4	19820825		
FR 2269331	A1	19751128	FR 1973-15738	19730502
CA 1042002	A1	19781107	CA 1973-170207	19730502
BE 799048	A1	19731105	BE 1973-130703	19730503
ES 414343	A1	19760616	ES 1973-414343	19730503
CH 581617	A	19761115	CH 1973-6317	19730503
CH 594621	A	19780113	CH 1976-3917	19730503
CH 594622	A	19780113	CH 1976-3918	19730503
SE 7603276	A	19760315	SE 1976-3276	19760315
SE 7603277	A	19760315	SE 1976-3277	19760315
JP 57158757	A2	19820930	JP 1981-137136	19810902
JP 58025670	B4	19830528		

PRIORITY APPLN. INFO.: GB 1972-20566 19720503
JP 1973-49611 19730502

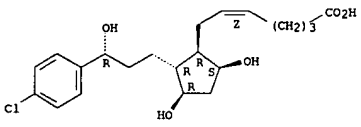
AB The prepn. of 34 16,17,18,19,20-pentanor-cis-5,trans-13-prostadienoic acid epimers (I; R = H, Me; R1 = Ph, 4-PhC6H4, 2-ClC6H4, 2-C10H7, 2-furyl, etc.) and .apprx.75 intermediates, derivs., or related compds. was described.

IT **51638-62-1P 51704-99-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 51638-62-1 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(4-chlorophenyl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, [1.alpha.(Z),2.beta.(R*),3.alpha.,5.alpha.]- (9CI) (CA INDEX NAME)

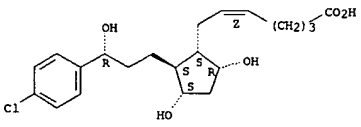
Relative stereochemistry.
Double bond geometry as shown.

L22 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 51704-99-5 CAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(4-chlorophenyl)-3-hydroxypropyl]-3,5-dihydroxycyclopentyl]-, [1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



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L2            0 S L1
L3            1 S L1 FULL

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L4            1 S L3

     FILE 'USPATFULL' ENTERED AT 10:30:55 ON 03 MAR 2003
L5            1 S L3
L6            0 S L5 NOT L4

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L7              STRUCTURE UPLOADED
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L10           1 S L9
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L13           0 S L12 NOT L10

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L15           9 S L14
L16         212 S L14 FULL

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L17         299 S L16
L18          95 S L17 NOT PY>=1999

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L21          22 S L20
L22          13 S L21 NOT PY>=2000

     FILE 'USPATFULL' ENTERED AT 10:46:26 ON 03 MAR 2003
L23          18 S L20
L24           0 S L23 NOT L21
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PAT-NO: WO009912897A1

DOCUMENT-IDENTIFIER: WO 9912897 A1

TITLE: A PROCESS FOR MAKING EPOXIDE INTERMEDIATES

PUBN-DATE: March 18, 1999

INVENTOR-INFORMATION:

NAME	COUNTRY
WOS, JOHN AUGUST	N/A
DELONG, MITCHELL ANTHONY	N/A
AMBURGEY, JACK S JR	N/A
DE, BISWANATH	N/A
DAI, HAIYAN GEORGE	N/A
WANG, YILI	N/A

ASSIGNEE-INFORMATION:

NAME	COUNTRY
PROCTER & GAMBLE	US

APPL-NO: US09818593

APPL-DATE: September 4, 1998

PRIORITY-DATA: US05825497P (September 9, 1997)

INT-CL (IPC): C07C405/00

EUR-CL (EPC): C07C405/00

ABSTRACT:

CHG DATE=19990905 STATUS=O>It has been surprisingly discovered that the disadvantages of the lengthy literature procedures to synthesize 13,14-dihydro prostaglandin A, E, and F derivatives can be overcome using a novel Methyl 7-(2-hydroxy-5-(2-(2-oxiranyl)ethyl)-4-(1,1,2,2tetramethyl--1-silapropoxy)cyclopentyl) heptanoate intermediate, which can be synthesized from commercially available Methyl 7-found3-(R)-hydroxy-5-oxo-1-c-

yclopent-1-yl! heptanoate. This novel intermediate can be coupled with oxygen,
carbon, sulfur, and nitrogen nucleophiles, in the presence of a base or a Lewis
acid, in a ring-opening process to provide 13,14-dihydro prostaglandin A, E,
and F derivatives.

L12 ANSWER 18 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

WO 98/21180

L12 ANSWER 19 OF 30 MARPAT COPYRIGHT 2002 ACS

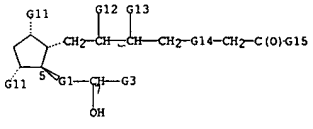
ACCESSION NUMBER: 128:321499 MARPAT
TITLE: Preparation of fluorine-containing prostaglandins as agents for inducing labor and controlling animal sexual cycle
INVENTOR(S): Nakano, Takashi; Mori, Nobuaki; Sakata, Kazuhisa; Matsumura, Yasushi; Morisawa, Yoshitomi
PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10087607	A2	19980407	JP 1996-245154	19960917

OTHER SOURCE(S): CASREACT 128:321499

AB Title compds. I (Y = F; A = ethylene, vinylene, ethynylene, OCH2, SCH2; R1 = (substituted) C3-8 alkyl, (substituted) C3-8 alkenyl, (substituted) C3-8 alkynyl, (substituted) C3-8 cycloalkyl, (substituted) aralkyl, (substituted) aryloxyalkyl; R2, R3 = H, OH-protecting group; R2 = R3 .noteq. H; X = CH2, O, S; Z = OR4, NHCOR5, NHSO2R6, SR7; R4-R7 = H, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, aralkyl; doted line = optional double bond), useful for inducing labor and controlling animal sexual cycle (no data), are prepd. by fluorination of prostaglandins I (Y = OH; A, X, Z, R1-R7 = same as above). A CH2Cl2 soln. of 103 mg (15RS)-16-[3-(methyl)phenyl]-9-acetyl-11-(2-tetrahydropyranyl)-17,18,19,20-tetranorprostaglandin F2.alpha. Me ester was treated with 132 mg morpholinosulfur trifluoride at -78.degree. for 1 h to give 89 mg (15RS)-15-deoxy-15-fluoro-16-[3-(methyl)phenyl]-9-acetyl-11-(2-tetrahydropyranyl)-17,18,19,20-tetranorprostaglandin F2.alpha. Me ester, which was treated with 3 mg P-MeC6H4SO3H.H2O in MeOH at room temp. for 2 h to give 65 mg (15RS)-15-deoxy-15-fluoro-16-[3-(methyl)phenyl]-9-acetyl-17,18,19,20-tetranorprostaglandin F2.alpha. Me ester.

MSTR 2



G1 = CH2CH2
G3 = cycloalkyl<(3-8)> (SO (1-) G8)
G11 = (-1) OH
G14 = CH2
MPL: claim 1
NTE: substitution is restricted

L12 ANSWER 19 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

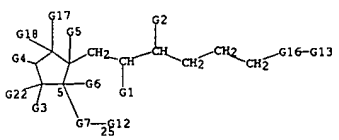
L12 ANSWER 20 OF 30 MARPAT COPYRIGHT 2002 ACS

ACCESSION NUMBER: 127:243271 MARPAT
TITLE: Non-acidic cyclopentane heptanoic acid 2-cycloalkyl or arylalkyl derivatives as therapeutic agents
INVENTOR(S): Woodward, David L.; Andrews, Steven W.; Burk, Robert M.; Garst, Michael E.
PATENT ASSIGNEE(S): Allergan, USA
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9730710	A1	19970828	WO 1997-US2269	19970213
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5688819	A	19971118	US 1996-605567	19960222
AU 9722721	A1	19970910	AU 1997-22721	19970213
PRIORITY APPLN. INFO.:			US 1996-605567	19960222
			US 1992-948056	19920921
			US 1993-154244	19931118
			US 1995-371339	19950111
			WO 1997-US2269	19970213

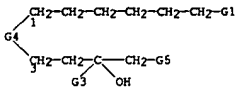
AB The present invention provides cyclopentane heptanoic acid 2-cycloalkyl or arylalkyl compds., which may be substituted in the 1-position with amino, amido, ether, or ester groups, e.g., a 1-OH cyclopentane heptanoic acid 2-(cycloalkyl or arylalkyl) compd. The cyclopentane heptanoic acid 2-(cycloalkyl or arylalkyl) compds. of the present invention are potent ocular hypotensives, and are particularly suitable for the management of glaucoma. Moreover, the compds. of the invention are smooth muscle relaxants with broad application in e.g. systemic hypertensive and pulmonary diseases. Prepn. of cyclopentane heptenamide-5-cis-2-(3.alpha.-hydroxy-4-m-chlorophenoxy-1-trans-butenyl)-1,5-dihydroxy, [1.alpha.,2.beta.,3.alpha.,5.alpha.] is described. The ability of the compds. of the invention to lower intraocular pressure was detd.

MSTR 1



G7 = alkylene<(2-6)> (SO (1-) G8)
G8 = OH
G12 = cycloalkyl<(3-7)>
G17 = OH
G22 = OH
DER: or pharmaceutically acceptable salts
MPL: claim 1
NTE: substitution is restricted

L12 ANSWER 16 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)



G3 = Cb<AR (0)> (SO)
G4 = 40-1 36-3

MPL: claim 6
NTE: substitution is restricted

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
G15 = Ak (SO G10)
G16 = CH2CH2
G17 = CH2CH2
DER: and pharmaceutically acceptable salts
MPL: claim 3

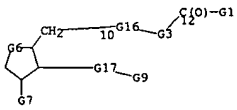
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 130:119579 MARPAT
TITLE: Prostaglandin derivatives devoid of side effects for the treatment of glaucoma
INVENTOR(S): Stjernschantz, Johan; Resul, Bahram; Lake, Staffan
PATENT ASSIGNEE(S): Pharmacia & Upjohn AB, Swed.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXX02
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9902165	A1	19990121	WO 1998-SE1368	19980710
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9883683	A1	19990208	AU 1998-83683	19980710
AU 739828	B2	20011018		
EP 1014991	A1	20000705	EP 1998-934082	19980710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9815501	A	20010717	BR 1998-15501	19980710
JP 2002509543	T2	20020326	JP 1999-508560	19980710
PRIORITY APPLN. INFO.:			SE 1997-2706	19970711
			WO 1998-SE1368	19980710

AB A new method and compns. for the treatment of glaucoma and ocular hypertension are described. The method is based on the usage of EP1 prostanoid receptor agonists which effectively reduce the intraocular pressure but have no, or reduced effect on iris pigmentation. The prostaglandin analog which is an EP1 selective agonist is applied topically on the eye.

MSTR 1



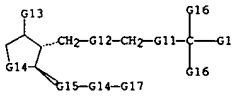
G3 = Ak<(2-5)>
G6 = CHOH
G7 = OH
G10 = OH
G14 = cycloalkylene

L12 ANSWER 18 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 129:260280 MARPAT
TITLE: Use of certain prostaglandin analogs to treat glaucoma and ocular hypertension
INVENTOR(S): Klimko, Peter G.; Selliah, Robert D.; Dean, Thomas R.; Hellberg, Mark R.; Bishop, John E.
PATENT ASSIGNEE(S): Alcon Laboratories, Inc., USA
SOURCE: U.S., 19 pp., Cont.-in-part of U.S. Ser. No. 316,672, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5807892	A	19980915	US 1995-480706	19950607
PRIORITY APPLN. INFO.:			US 1994-316672	19940930

AB The prostaglandin analogs I (R1 = CH2R, CO2R4; R = OH or functionally modified HO group; R2, R3 = H, Me; R4 = H, cationic salt moiety, (un)substituted alkyl, cycloalkyl, cycloalkylalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl; W = CH2, O, SOm; m = 0, 1, 2; A = CH2CH2, CH:CH, C.tplbond.C; X = H, Cl, F, R; Z11 and Z15 = O, H, and R in any configuration; Y = CH2CH2, trans-CH:CH, C.tplbond.C; B = bond, CH2) were prepd. for treatment of glaucoma and ocular hypertension. Ophthalmic pharmaceutical compns. contg. I were prepd. Thus, the prostaglandin II was prepd. in 14 steps from di-Me methylphosphonate and Me cyclohexanecarboxylate via cyclopentafuranone III and the prostenol IV. At 3 .mu.g II had 42% IOP redn. from the baseline.

MSTR 1



G2 = OH (SO)
G11 = CH2
G12 = CH2CH2
G13 = OH (SO)
G14 = 24

G15 = CH2CH2
G17 = cyclopentyl
MPL: claim 1
NTE: substitution is restricted
STE: all vinylene groups are trans

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 14 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
G28 = 148

G42 = alkylene<(1-4)>
G43 = O
G45 = azetidino
G50 = 188

G52 = alkyl<(1-6)>
DER: or pharmaceutically acceptable salts, esters and prodrugs
MPL: claim 1
NTE: additional substitution and ring formation also claimed
NTE: substitution is restricted

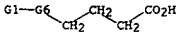
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 15 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 130:332912 MARPAT
TITLE: Activators of the nuclear orphan receptor peroxisome proliferator-activated receptor gamma for treatment of diabetes and cardiovascular disorders
INVENTOR(S): Kliewer, Steven Anthony; Lehmann, Jurgen M.; Willson, Timothy M.
PATENT ASSIGNEE(S): Glaxo Wellcome Inc., USA
SOURCE: U.S., 9 pp., Cont. of U.S. Ser. No. 804,310, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5902726	A	19990511	US 1998-28988	19980225
US 5994554	A	19991130	US 1998-207936	19981209
PRIORITY APPLN. INFO.:			US 1994-363482	19941223
			US 1995-386394	19950210
			US 1997-804310	19970221
			US 1998-28988	19980225

AB The present invention provides activator compds., including agonists, to the peroxisome proliferator-activated receptor gamma. Particular PPAR.gamma. activators are set forth, as are a pharmaceutical compn. for treating diabetes, non-insulin-dependent diabetes mellitus, cardiovascular disorders, and methods for such treatment. Also claimed is a method of identifying activator compds.

MSTR 3



G1 = 10

G2 = alkyl<(1-8)> (SR G3)
G3 = Ph (SO G4) / OH
G6 = alkylene<(1-8)>
G7 = OH
MPL: disclosure
NTE: substitution is restricted

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 15 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)

L12 ANSWER 16 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 130:252190 MARPAT
TITLE: Preparation of a novel epoxide intermediate for 13,14-dihydroprostaglandin A, E and F derivatives
INVENTOR(S): Wos, John August; Delong, Mitchell Anthony; Amburgey, Jack S., Jr.; De, Biswanath; Dai, Haiyan George; Wang, Yili
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9912897	A1	19990318	WO 1998-US18593	19980904
W: AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2303797	AA	19990318	CA 1998-2303797	19980904
AU 9893057	A1	19990329	AU 1998-93057	19980904
US 6066781	A	20000523	US 1998-148539	19980904
EP 1012138	A1	20000628	EP 1998-945917	19980904
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
BR 9811771	A	20000829	BR 1998-11771	19980904
JP 2001515884	T2	20010925	JP 2000-510709	19980904
ZA 9808417	A	20000322	ZA 1998-8417	19980915
NO 2000001140	A	20000504	NO 2000-1140	20000306
PRIORITY APPLN. INFO.:			US 1997-58254P	19970909
			WO 1998-US18593	19980904

OTHER SOURCE(S): CASREACT 130:252190
AB The title epoxide intermediate I (R = alkyl, carbocyclic or heterocyclic aliph. or arom. ring; R1 = H, alkyl, carbocyclic or heterocyclic aliph. or arom. ring provided C-15 has only one heteroatom attached; Q = suitable protecting group) was prepd. from the intermediate II (R = alkyl, carbocyclic or heterocyclic aliph. or arom. ring; R1 = H, alkyl, carbocyclic or heterocyclic aliph. or arom. ring provided C-15 has only one heteroatom attached; Q = suitable protecting group) by hydride redn. followed by epoxidn. Thus, the alkenylcyclopentylheptanoate III, prepd. from the corresponding cyclopentenylheptanoate and BrMgCH2CH2CH:CH2, was reduced with NaBH4 followed by epoxidn. with m-chloroperbenzoic acid to give the epoxide IV. IV was coupled with oxygen, carbon, sulfur and nitrogen nucleophiles in the presence of base or a Lewis acid in a ring opening process to yield 13,14-dihydroprostaglandin derivs. V (R = Me, R2 = SPh; R = Me, R2 = NHPh; R = H, R2 = CH2C6H4Me-o).

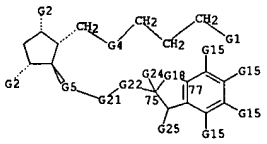
MSTR 3

L12 ANSWER 10 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 134:56518 MARPAT
TITLE: Preparation of conformationally rigid aryl prostaglandins for use in glaucoma therapy
INVENTOR(S): Zinke, Paul W.; Bishop, John E.; Dean, Thomas R.; Hellberg, Mark R.
PATENT ASSIGNEE(S): Alcon Laboratories, Inc., USA
SOURCE: U.S., 7 pp., Cont.-in-part of U.S. 5,698,733. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6169111	B1	20010102	US 1999-308052	19990512
US 5698733	A	19971216	US 1995-480707	19950607
WO 9821180	A1	19980522	WO 1996-US17901	19961112
W: AU, CA, CN, JP, MX, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9676720	A1	19980603	AU 1996-76720	19961112
PRIORITY APPLN. INFO.:			US 1995-480707	19950607
			WO 1996-US17901	19961112
			US 1994-316275	19940930

AB Conformationally rigid aryl prostaglandins I [Y = C(O)NR1R2,CH2OR3, CH2NR1R2, CO2R1, or CO2M; M = cationic salt moiety; R1, R2 (same or different) = H, alkyl, alkenyl or cycloalkyl; R, R3 (same or different) = C(O)R4 or H; R4 = alkyl, alkenyl or cycloalkyl; A = CH2CH2, cis or trans CH=CH, or C.tplbond.C; Z = CH2CH2 or trans CH=CH; X = [O, S(O)n,](CH2)n; n = 0-2; B = H and OH in either configuration or = O; D = R1, OR1, halogen, S(O)nR4, NO2, NR1R2, H or CF3; n = 0-2] were prepd. for treatment of glaucoma and ocular hypertension. Thus, II was prepd. starting from III, via hydrogenation, protection of hydroxyl groups, reaction with (4-carboxybutyl)triphenylphosphonium bromide, isopropylation with 2-iodopropane, and deprotection. Ophthalmic pharmaceutical formulations contg. I were also presented. II with a low incidence of side effects, exhibits a significantly improved IOP therapeutic profile of PGF2.alpha. iso-Pr ester.

MSTR 1



G2 = OH
G4 = CH2CH2

L12 ANSWER 10 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
G5 = CH2CH2
G18 = O
G21 = CHOH
MPL: claim 1
NTE: also incorporates broader disclosure

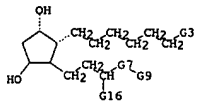
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 30 MARPAT COPYRIGHT 2002 ACS
ACCESSION NUMBER: 133:222498 MARPAT
TITLE: Preparation of prostaglandin F analogs for treatment of bone disorders and glaucoma
INVENTOR(S): Delong, Mitchell Anthony; Soper, David Lindsey; Wos, John August; De, Biswanath
PATENT ASSIGNEE(S): Procter & Gamble Co., USA
SOURCE: PCT Int. Appl., 45 pp. CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000051980	A1	20000908	WO 2000-US5301	20000229
W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1159266	A1	20011205	EP 2000-917686	20000229
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000008776	A	20011218	BR 2000-8776	20000229
JP 2002538139	T2	20021112	JP 2000-602208	20000229
NO 2001004241	A	20011105	NO 2001-4241	20010831
US 2002037913	A1	20020328	US 2001-946021	20010904
PRIORITY APPLN. INFO.:			US 1999-122924P	19990305
			WO 2000-US5301	20000229

AB The prostaglandin F analogs I (R = CO2H, C(O)NHOH, CO2R3, CH2OH, S(O)2R3, C(O)NHR3, C(O)NHS(O)2R4, or tetrazole where R3 = R4 = alkyl, heteroalkyl, carbocyclic or heterocyclic aliph. ring, monocyclic arom. or heteroarom. ring; R2 = H, lower alkyl; X = C.tplbond.C or covalent bond; Z = arom. or heteroarom. ring provided that when Z is a heteroarom. ring and X is a covalent bond then Z is attached to C15 via a carbon atom) and all stereoisomers, or a pharmaceutically acceptable salt or biohydrolyzable amide, ester or imide of these analogs were prepd. Thus II (no data) was prepd. in a multistep sequence starting from Me 7-[3(R)-hydroxy-5-oxo-1-cyclopenten-1-yl]heptanoate. These compds. are useful in the treatment and prevention of bone disorders with the preferred dosage for systemic administration of about 1 to 50 .mu.g/kg body wt. per day. Pharmaceutical compns. contg. I are described.

MSTR 1



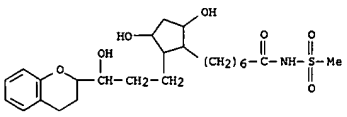
L12 ANSWER 11 OF 30 MARPAT COPYRIGHT 2002 ACS (Continued)
G9 = aryl<RC (1-2)> (SO (1-) G13)
G16 = OH
MPL: claim 1
NTE: additional heteroatom interruptions in G10 also claimed
NTE: or pharmaceutically acceptable salts, biohydrolyzable amides, esters, or imides
NTE: substitution is restricted
STE: and optical isomers, diastereomers, and enantiomers

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1978:406001 CAPLUS
DOCUMENT NUMBER: 89:6001
TITLE: 2-Substituted arylheterocyclic .omega.-pentanorprostaglandins
INVENTOR(S): Johnson, Michael Ross; Hess, Hans Jurgen Ernst; Bindra, Jasjit Singh
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Ger. Offen., 90 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2737808	A1	19780316	DE 1977-2737808	19770822
JP 53028159	A2	19780316	JP 1977-102180	19770825
JP 55039554	B4	19801013		
GB 1542569	A	19790321	GB 1977-35751	19770825
BE 858147	A1	19780227	BE 1977-180460	19770826
DK 7703794	A	19780228	DK 1977-3794	19770826
NL 7709444	A	19780301	NL 1977-9444	19770826
FR 2362849	A1	19780324	FR 1977-26092	19770826
FR 2362849	B1	19800711		

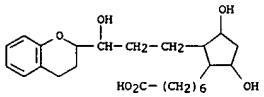
PRIORITY APPLN. INFO.: US 1976-718107 19760827
AB A series of title prostaglandins and their intermediates, e.g., I and II, was prepd. by incorporating III and IV (both the racemic and both optically active forms were used) into conventional syntheses.
IT **66602-32-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 66602-32-2 CAPLUS
CN Cyclopentaneheptanamide, 2-[3-(3,4-dihydro-2H-1-benzopyran-2-yl)-3-hydroxypropyl]-3,5-dihydroxy-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



L10 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1978:405998 CAPLUS
DOCUMENT NUMBER: 89:5998
TITLE: Cl-p-Biphenyl esters of .omega.-pentanorprostaglandins
INVENTOR(S): Johnson, Michael Ross; Hess, Hans Juergen Ernst; Bindra, Jasjit Singh
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Ger. Offen., 90 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2737807	A1	19780309	DE 1977-2737807	19770822
NL 7709386	A	19780301	NL 1977-9386	19770825
GB 1545411	A	19790510	GB 1977-35750	19770825
BE 858146	A1	19780227	BE 1977-180459	19770826
DK 7703792	A	19780228	DK 1977-3792	19770826
JP 53028160	A2	19780316	JP 1977-102509	19770826
FR 2362848	A1	19780324	FR 1977-26141	19770826
FR 2362848	B1	19800711		

PRIORITY APPLN. INFO.: US 1976-718138 19760827
AB 15-Dihydrobenzofuranyl or -pyranylpentanor PGE and PGF analogs and their 4-PhC6H4 esters, e.g. I and II, in which the heterocycles were introduced in both racemic and optically active forms, were prepd. by appropriate modifications of conventional methods.
IT **66599-03-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 66599-03-9 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[3-(3,4-dihydro-2H-1-benzopyran-2-yl)-3-hydroxypropyl]-3,5-dihydroxy- (9CI) (CA INDEX NAME)

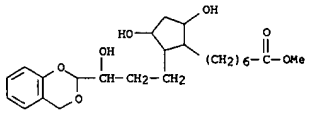


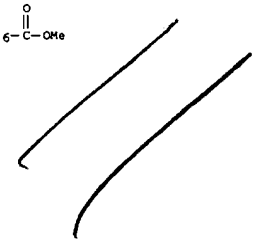
L10 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:89839 CAPLUS
DOCUMENT NUMBER: 86:89839
TITLE: 1,3-Benzodioxaneprostanoic acid derivatives
INVENTOR(S): Vorbrueggen, Helmut; Schwarz, Norbert; Loge, Olaf; Elger, Walter
PATENT ASSIGNEE(S): Schering A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 96 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2508826	A1	19760909	DE 1975-2508826	19750227
DK 7600399	A	19760828	DK 1976-399	19760130
AU 7610998	A1	19770818	AU 1976-10998	19760211
CH 625236	A	19810915	CH 1976-2149	19760220
GB 1546442	A	19790411	GB 1976-7003	19760223
NL 7601847	A	19760831	NL 1976-1847	19760224
JP 51125393	A2	19761101	JP 1976-19811	19760224
SE 7602500	A	19760830	SE 1976-2500	19760226
SE 424552	B	19820726		
SE 424552	C	19821104		
AT 351188	B	19790710	AT 1976-1432	19760226
AT 7601432	A	19781215		
BE 839027	A1	19760827	BE 1976-164720	19760227
FR 2302089	A1	19760924	FR 1976-5547	19760227
FR 2302089	B1	19800613		
CA 1087178	A1	19801007	CA 1976-246701	19760227
DK 7702869	A	19770628	DK 1977-2869	19770628
US 4217360	A	19800812	US 1979-2268	19790110

PRIORITY APPLN. INFO.: DE 1975-2508826 19750227
DK 1976-399 19760130
US 1976-659130 19760218
US 1977-800126 19770524
US 1978-888059 19780320
CA 1979-246701 19790822
AB Prostaglandin analogs I [RR1 = CH(OH)CH2CHOH, COCH2CHOH, COCH:CH, CH(OH)CH2CO; X = cis-CH:CH, CH2CH2; X1 = trans-CH:CH, CH2CH2] were prepd. Thus, saligenin was condensed with Cl2CHCO2H, to give Me 2-benzodioxancarboxylate , which was treated with MePPh3Br, the resulting phosphorane treated with aldehyde II, the two oxo groups of th resulting III reduced with cleavage of the benzoyl group, and the resulting thiol treated with HO2C(CH2)4PPh3Br, followed by esterification to give IV.
IT **61572-83-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 61572-83-6 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[3-(4H-1,3-benzodioxin-2-yl)-3-hydroxypropyl]-3,5-dihydroxy-, methyl ester (9CI) (CA INDEX NAME)

L10 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS (Continued)





L7 ANSWER 3 OF 7 USPATFULL

ACCESSION NUMBER: 80:39364 USPATFULL
TITLE: Novel 1,3-benzodioxaneprostanoic acid derivatives and process for the preparation thereof
INVENTOR(S): Vorbrueggen, Helmut, Berlin, Germany, Federal Republic of
Schwarz, Norbert, Berlin, Germany, Federal Republic of
Loge, Olaf, Berlin, Germany, Federal Republic of
Elger, Walter, Berlin, Germany, Federal Republic of
PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Berlin & Bergkamen, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4217360		19800812
APPLICATION INFO.:	US 1979-2268		19790110 (6)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1978-888059, filed on 20 Mar 1978, now abandoned which is a continuation of Ser. No. US 1977-800126, filed on 24 May 1977, now abandoned which is a continuation of Ser. No. US 1976-659130, filed on 18 Feb 1976, now abandoned

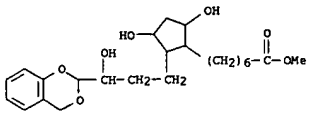
	NUMBER	DATE
PRIORITY INFORMATION:	DE 1975-2508826	19750227

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Demers, Arthur P.
LEGAL REPRESENTATIVE: Millen & White
NUMBER OF CLAIMS: 76
EXEMPLARY CLAIM: 1
LINE COUNT: 1901
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 1,3-Benzodioxaneprostanoic acid compound of the formula ##STR1## wherein R.sub.1 is hydroxy, alkoxy of 1-10 carbon atoms, methylsulfamido, substituted or unsubstituted aryloxy, or O--CH.sub.2 --U--V wherein U is a direct bond, carbonyl, or carbonyloxy, and V is phenyl or phenyl substituted, e.g. by one or more of phenyl, phenoxy, alkoxy of 1-2 carbon atoms, and halogen; A is --CH.sub.2 --CH.sub.2 -- or trans --CH.dbd.CH--; B is --CH.sub.2 --CH.sub.2 -- or cis- or trans--CH.dbd.CH--; Z is hydroxymethylene or carbonyl; X Y, if Z is hydroxymethylene, is ##STR2## or, if Z is carbonyl, is ##STR3## or --CH.dbd.CH--; R.sub.2 is hydrogen or alkyl of 1-5 carbon atoms; R.sub.3 and R.sub.4 each are H, F, Cl, Br, I or CF.sub.3, CH.sub.3 or alkoxy of 1-2 carbon atoms or R.sub.3 and R.sub.4 in 6-,7-position is methylendioxy; and if R.sub.1 is hydroxy, salts thereof with pharmaceutically acceptable bases, are agents for inducing menstruation, interrupting pregnancy, inducing labor and synchronizing the sexual cycle in female mammals.

IT **61572-83-6P**
(prepn. of)
RN 61572-83-6 USPATFULL
CN Cyclopentaneheptanoic acid, 2-[3-(4H-1,3-benzodioxin-2-yl)-3-hydroxypropyl]-3,5-dihydroxy-, methyl ester (9CI) (CA INDEX NAME)

L7 ANSWER 3 OF 7 USPATFULL (Continued)



L7 ANSWER 4 OF 7 USPATFULL

ACCESSION NUMBER: 78:67126 USPATFULL
TITLE: Prostaglandin analogues
INVENTOR(S): Hayashi, Masaki, Takatsuki, Japan
Kori, Seiji, Takatsuki, Japan
Miyake, Hajimu, Suita, Japan
PATENT ASSIGNEE(S): Ono Pharmaceutical Company, Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4128720		19781205
APPLICATION INFO.:	US 1976-657125		19760211 (5)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1975-6385	19750214

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Killos, Paul J.
LEGAL REPRESENTATIVE: Graddis, Albert H., Chow, Frank S.
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
LINE COUNT: 2049
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

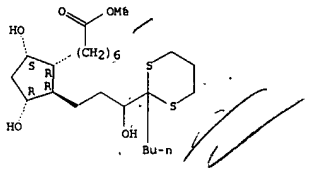
AB Prostaglandins of the formula: ##STR1## wherein A represents a grouping of the formula: ##STR2## X represents ethylene or cis-vinylene, Y represents ethylene or trans-vinylene, R represents a hydrogen atom or a straight- or branched-chain alkyl group containing from 1 to 12 carbon atoms, R.sup.1 represents a hydrogen atom or a straight- or branched-chain alkyl group containing from 1 to 10 carbon atoms, R.sup.2 represents a straight- or branched-chain alkyl group containing from 1 to 4 carbon atoms, R.sup.3 represents a straight- or branched-chain alkyl group containing from 1 to 4 carbon atoms, a cycloalkyl group containing from 4 to 7 carbon atoms, or a grouping of the formula: ##STR3## wherein R.sup.4 and R.sup.5 each represents a hydrogen or halogen atom, a trifluoromethyl group or an alkyl group containing from 1 to 3 carbon atoms, or R.sup.2 and R.sup.3 together represent an ethylene or trimethylene group and cyclodextrin clathrates of such acids and esters and, when R represents a hydrogen atom, non-toxic salts of such acids, are disclosed.

These compounds exhibit characteristic prostaglandin activity, in particular, inhibitory activity on gastric secretion, luteolytic activity and so on.

IT **61408-29-5P**
(prepn. of)
RN 61408-29-5 USPATFULL
CN Prostan-1-oic acid, 9,11,15-trihydroxy-16,16-[1,3-propanediylbis(thio)]-, methyl ester, (9.alpha.,11.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L7 ANSWER 4 OF 7 USPATFULL (Continued)



=> d ibib ab hitstr 1-95

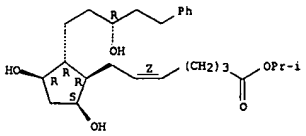
L18 ANSWER 1 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:494903 CAPLUS
DOCUMENT NUMBER: 131:139444
TITLE: Comparison of the effect of latanoprost 0.005% and timolol 0.5% on the calculated ocular perfusion pressure in patients with normal-tension glaucoma
AUTHOR(S): Stephen, M. Drance; Crichton, Andrew; Mills, Richard P.
CORPORATE SOURCE: Department of Ophthalmology, University of British Columbia, Vancouver, BC, Can.
SOURCE: American Journal of Ophthalmology (1998), 125(5), 585-592
CODEN: AJOPAA; ISSN: 0002-9394
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aim of this study was to compare the calcd. mean ocular perfusion pressure at the end of 3 wk' treatment with latanoprost 0.005% once daily or timolol 0.5% twice daily in normal-tension glaucoma patients. In a three-center, double-masked, randomized, crossover study, 36 patients were allocated to two treatment groups; one received 3 wk each of placebo, latanoprost, placebo, and timolol, whereas the other group had placebo, timolol, placebo, and latanoprost. Intraocular pressure and resting systemic blood pressure were measured at 9 AM, 12 noon, and 4 PM. Ocular perfusion pressure was calcd. for each time period as well as the mean of three values (daytime av.). Systemic blood pressure and heart rate were also recorded at 30-min intervals during the last 24 h of each treatment period. The av. daytime mean ocular perfusion pressure (mean .+-. SEM) following latanoprost treatment was 53.2.+-.1.4 mm Hg, an increase of 8% from the latanoprost run-in period, compared with 50.9.+-.1.1 mm Hg following timolol treatment, an increase of 2% from the timolol run-in period (P <.05, ANOVA). Timolol reduced the blood pressure. The difference in mean daytime and nighttime systolic blood pressure measurements as well as nighttime diastolic blood pressure was about 5 mm Hg between the latanoprost and timolol treatments. The daytime and nighttime heart rates were also slower during the timolol treatment. Because ocular perfusion pressure may be important in some glaucomatous patients, latanoprost appears to affect ocular perfusion pressure more favorably than timolol does in patients with normal-tension glaucoma.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(comparison of effect of latanoprost and timolol on calcd. ocular perfusion pressure in humans with normal-tension glaucoma)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 1 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

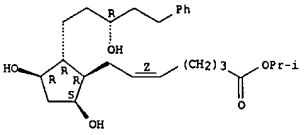
L18 ANSWER 2 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:494898 CAPLUS
DOCUMENT NUMBER: 131:139442
TITLE: Latanoprost treatment for glaucoma: effects of treating for 1 year and of switching from timolol
AUTHOR(S): Camras, Carl B.; Wax, Martin B.; Ritch, Robert; Weinreb, Robert; Robin, Alan L.; Higginbotham, Eve J.; Lustgarten, Jacqueline; Stewart, William C.; Sherwood, Mark; Krupin, Theodore; Wilensky, Jacob; Cioffi, George A.; Katz, L. Jay; Schumer, Robert A.; Kaufman, Paul L.; Hinckler, Don; Zimmerman, Thom; Stjernschantz, Johan
CORPORATE SOURCE: The United States Latanoprost Study Group, Department of Ophthalmology, University of Nebraska Medical Center, Omaha, NE, 68198-5540, USA
SOURCE: American Journal of Ophthalmology (1998), 126(3), 390-399
CODEN: AJOPAA; ISSN: 0002-9394
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aim of this study was to det. the efficacy and safety of latanoprost treatment for 1 yr in glaucoma patients, and to evaluate the effects of switching from timolol to latanoprost therapy. Latanoprost 0.005% was topically applied once daily without masking for 6 mo in 223 patients with elevated intraocular pressure after previous treatment with latanoprost once daily or 0.5% timolol twice daily for 6 mo in a multicenter, randomized, double-masked, parallel group study. Compared with baseline values before treatment, a significant (P <.0001) diurnal redn. in intraocular pressure of 6 to 8 mm Hg was maintained with minimal fluctuation for the duration of treatment. When treatment was switched from timolol to latanoprost, intraocular pressure was reduced by 1.5.+-.0.3 mm Hg (mean .+-. SEM; 8% change in intraocular pressure; 31% of the intraocular pressure redn. produced by timolol; P <.001) compared with the change in intraocular pressure in patients remaining on latanoprost therapy. Of the patients initially enrolled, 95% successfully completed treatment. There was a slight overall increase in conjunctival hyperemia in patients who switched from timolol to latanoprost, but no change in those who continued latanoprost. The timolol-induced redn. of resting heart rate returned to baseline levels after switching to latanoprost. Of the 247 patients treated with latanoprost during the masked and/or open-label studies, 12 (5%) demonstrated a definite (n = 4) or possible (n = 8) increase in iris pigmentation. Latanoprost is a well-tolerated ocular hypotensive agent that appears to be more effective than timolol in reducing intraocular pressure. The increase in iris pigmentation appears to be harmless but requires further investigation.

IT **130209-82-4**, Latanoprost
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(latanoprost treatment for glaucoma for one year in humans and effect of switching from timolol to latanoprost therapy)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 2 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

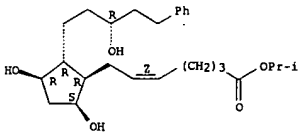
L18 ANSWER 3 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:489769 CAPLUS
DOCUMENT NUMBER: 131:139435
TITLE: Combined effect of dorzolamide and latanoprost on the rate of aqueous humor flow
AUTHOR(S): Vanlandingham, Benjamin D.; Brubaker, Richard F.
CORPORATE SOURCE: Mayo Medical School, Mayo Clinic and Mayo Foundation, Rochester, MN, 55905, USA
SOURCE: American Journal of Ophthalmology (1998), 126(2), 191-196
CODEN: AJOPAA; ISSN: 0002-9394
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Whether latanoprost, an ocular hypotensive agent believed to enhance uveoscleral outflow of aq. humor, augments the aq.-suppressing effect of dorzolamide, a topical carbonic anhydrase inhibitor was studied in normal subjects. Twenty-four normal subjects underwent measurement of aq. humor flow by fluorophotometry to det. the flow with placebo, with dorzolamide, and with a combination of dorzolamide and latanoprost. The flow of aq. humor was suppressed 13% by dorzolamide but not by latanoprost. Latanoprost did not augment the effect of dorzolamide on aq. humor flow; latanoprost and dorzolamide had additive ocular hypotensive effects. The uveoscleral flow effect of latanoprost does not improve the aq.-suppressing effect of dorzolamide, but the two drugs have additive ocular hypotensive effects.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combined effect of dorzolamide and latanoprost on the rate of aq. humor flow in humans)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

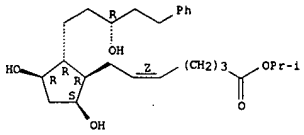
L18 ANSWER 4 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:74965 CAPLUS
DOCUMENT NUMBER: 130:347360
TITLE: Synthesis of antiglaucoma drug latanoprost and its effect on reduction of intraocular pressure (IOP)
AUTHOR(S): Chen, Jianxing; Chen, Hailin; Chen, Liangkang; Yan, Hanying
CORPORATE SOURCE: Shanghai Institute of Planned Parenthood, Shanghai, 200032, Peop. Rep. China
SOURCE: Zhongguo Yaowu Huaxue Zazhi (1998), 8(3), 213-217
CODEN: ZYHZEF; ISSN: 1005-0108
PUBLISHER: Zhongguo Yaowu Huaxue Zazhi Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Latanoprost, a prostaglandin drug of antiglaucoma, was synthesized with Corey alc. in 10 steps. The structure was confirmed by IR, 1H-NMR, MS and elemental anal. Preliminary pharmacol. tests showed that latanoprost had good effect on reducing IOP.

IT **130209-82-4P**, Latanoprost
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis of antiglaucoma drug latanoprost and effect on redn. of intraocular pressure)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 5 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:722941 CAPLUS
DOCUMENT NUMBER: 130:119543
TITLE: Tyrosine kinase inhibitors suppress prostaglandin F2.alpha.-induced phosphoinositide hydrolysis, Ca2+ elevation and contraction in iris sphincter smooth muscle
AUTHOR(S): Yousufzai, Sardar Y. K.; Abdel-Latif, Ata A.
CORPORATE SOURCE: Department of Biochemistry and Molecular Biology, Medical College of Georgia, Augusta, GA, 30612, USA
SOURCE: European Journal of Pharmacology (1998), 360(2/3), 185-193
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

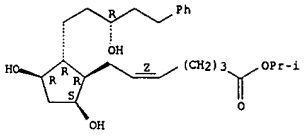
AB We investigated the effects of the protein tyrosine kinase inhibitors, genistein, tyrphostin 47, and herbimycin on prostaglandin F2.alpha.- and carbachol-induced inositol-1,4,5-trisphosphate (IP3) prodn., [Ca2+]i mobilization and contraction in cat iris sphincter smooth muscle. Prostaglandin F2.alpha. and carbachol induced contraction in a concn.-dependent manner with EC50 values of 0.92.times.10-9 and 1.75.times.10-8 M, resp. The protein tyrosine kinase inhibitors blocked the stimulatory effects of prostaglandin F2.alpha., but not those evoked by carbachol, on IP3 accumulation, [Ca2+]i mobilization and contraction, suggesting involvement of protein tyrosine kinase activity in the physiol. actions of the prostaglandin. Daidzein and tyrphostin A, inactive neg. control compds. for genistein and tyrphostin 47, resp., were without effect. Latanoprost, a prostaglandin F2.alpha. analog used as an antiglaucoma drug, induced contraction and this effect was blocked by genistein. Genistein (10 .mu.M) markedly reduced (by 67%) prostaglandin F2.alpha.-stimulated increase in [Ca2+]i but had little effect on that of carbachol in cat iris sphincter smooth muscle cells. Vanadate, a potent inhibitor of protein tyrosine phosphatase, induced a slow gradual muscle contraction in a concn.-dependent manner with an EC50 of 82 .mu.M and increased IP3 generation in a concn.-dependent manner with an EC50 of 90 .mu.M. The effects of vanadate were abolished by genistein (10 .mu.M). Wortmannin, a myosin light chain kinase inhibitor, reduced prostaglandin F2.alpha.- and carbachol-induced contraction, suggesting that the involvement of protein tyrosine kinase activity may lie upstream of the increases in [Ca2+]i evoked by prostaglandin F2.alpha.. Further studies aimed at elucidating the role of protein tyrosine kinase activity in the coupling mechanism between prostaglandin F2.alpha. receptor activation and increases in intracellular Ca2+ mobilization and identifying the tyrosine-phosphorylated substrates will provide important information about the role of protein tyrosine kinase in the mechanism of smooth muscle contraction, as well as about the mechanism of the intraocular pressure lowering effect of the prostaglandin in glaucoma patients.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(tyrosine kinase inhibitors suppress prostaglandin F2.alpha.-induced phosphoinositide hydrolysis, Ca2+ elevation and contraction in iris sphincter smooth muscle)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 5 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

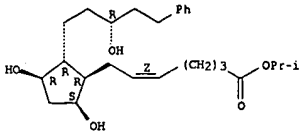
L18 ANSWER 6 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:626469 CAPLUS
DOCUMENT NUMBER: 129:326456
TITLE: Effect of latanoprost on the extracellular matrix of the ciliary muscle. A study on cultured cells and tissue sections
AUTHOR(S): Ocklind, Anette
CORPORATE SOURCE: Glaucoma Research Laboratories, Pharmacia and Upjohn AB (publ), Uppsala, S-751 82, Swed.
SOURCE: Experimental Eye Research (1998), 67(2), 179-191
CODEN: EXERA6; ISSN: 0014-4835
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Prostaglandin F2.alpha. and its analog latanoprost, both prostanoid FP receptor agonists, reduce the intraocular pressure mainly by enhancing uveoscleral outflow. Changes in the extracellular matrix of the ciliary muscle may be involved in the increased outflow. The effect of latanoprost and prostaglandin F2.alpha. on the extracellular matrix of the ciliary muscle was investigated. Cell cultures of human ciliary muscle were treated with latanoprost acid or prostaglandin F2.alpha. for 1-2 days and were immunostained against various extracellular matrix components and metalloproteinases. Proteinases were also analyzed by zymog. and by measuring plasmin generating ability. For comparison, matrix components were immunolocalized on tissue sections from monkey eyes, treated topically once daily with latanoprost for 10 days. In response to both prostaglandins collagens I, III, and IV, fibronectin, laminin and hyaluronan were reduced, while metalloproteinase -2 and -3 were increased. Zymog. demonstrated the presence of functionally active metalloproteinase -2. Both prostaglandins enhanced the generation of plasmin, an activator of metalloproteinases. In the anterior part of the ciliary muscle in latanoprost-treated eyes immunostained collagen VI was decreased in 5 out of 5 monkeys and collagen IV was decreased in 4 of the 5 monkeys. These results suggest a role for latanoprost in the remodeling of extracellular matrix in the ciliary muscle. A latanoprost-induced change in the extracellular matrix might augment the flow of aq. humor through the ciliary muscle bundles of the uveoscleral pathway. (c) 1998 Academic Press.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effect of latanoprost on the extracellular matrix of the ciliary muscle)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 6 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

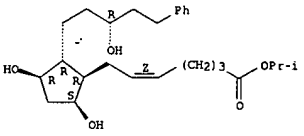
L18 ANSWER 7 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:575908 CAPLUS
DOCUMENT NUMBER: 129:326123
TITLE: Prostaglandin derivates as ocular hypotensive agents
AUTHOR(S): Alm, Albert
CORPORATE SOURCE: Department of Ophthalmology, University Hospital, Uppsala University, Uppsala, S-701 85, Swed.
SOURCE: Progress in Retinal and Eye Research (1998), 17(3), 291-312
CODEN: PRTRES; ISSN: 1350-9462
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 109 refs. Low doses of naturally occurring prostaglandins reduce the intraocular pressure (IOP) in many species. Species differences do occur both in terms of efficiency and mechanism of action, and also among the different prostaglandins. Among the prostaglandins mainly PGF2.alpha. has been tested in human eyes. Although it is an effective ocular hypotensive drug it is not clin. useful due to pronounced ocular side-effects, mainly conjunctival hyperemia and irritation, at doses that produce a maximal effect on IOP. Modification of the drug has resulted in two analogs that are now in clin. use, latanoprost and unoprostone. In long-term studies latanoprost, when applied as a once-daily dose of a 0.005% concn., reduces IOP at least as effectively as adrenergic beta-receptor blockers. The redn. of IOP is due to increased outflow. This takes place mainly, or exclusively, through the uveoscleral routes, thus introducing a new pharmacol. principle for the treatment of glaucoma. The drug reaches systemic concns. that are below the level expected to stimulate FP-receptors outside the eye and it is rapidly eliminated with a half-life in plasma of 17 min, which explains why the clin. trials have not revealed any systemic side-effects with latanoprost. The most frequent side effect obsd. with latanoprost is an increased pigmentation of the iris mainly in eyes with irides that are already partly brown. This effect is seen with several naturally occurring prostaglandins and is due to stimulation of melanin prodn. in the melanocytes of the iridial stroma. No structural changes of the melanocytes have been obsd. in studies performed both in vivo and in vitro. The mechanism of action for unoprostone is the same as for latanoprost. No effect on iris color has been reported for unoprostone but so far there is limited experience with the drug in eyes with a mixed iris color.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prostaglandin derivates as ocular hypotensive agents in humans and lab. animals)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 7 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



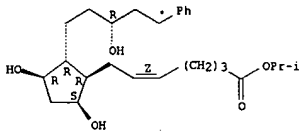
L18 ANSWER 8 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:571808 CAPLUS
DOCUMENT NUMBER: 129:310405
TITLE: Comparison of two fixed combinations of latanoprost and timolol in open-angle glaucoma
AUTHOR(S): Diestelhorst, Michael; Almegard, Birgitta
CORPORATE SOURCE: Department of Ophthalmoloy, University of Cologne, Cologne, D-50931, Germany
SOURCE: Graefe's Archive for Clinical and Experimental Ophthalmology (1998), 236(8), 577-581
CODEN: GACODL; ISSN: 0721-832X
PUBLISHER: . Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The intraocular pressure (IOP)-reducing effects of fixed combinations of timolol (0.5%) and latanoprost (0.001% or 0.005%) after 4-wk treatment were compared. Following a 1-wk run-in period on timolol 0.5% once daily, patients were randomized to receive once-daily treatment with a fixed combination of timolol 0.5% and latanoprost 0.001% (combination 10) or latanoprost 0.005% (combination 50) or to the individual monotherapies. The IOP was measured at the start and at 8 a.m., noon and 4 p.m. on days 1, 7 and 28. Combination 10, combination 50, latanoprost and timolol reduced IOP by 3.7, 6.1, 4.9 and 2.1 mm Hg, resp., from a basal mean diurnal IOP of 24.8, 24.1, 25.2 and 24.8 mm Hg, resp. The difference in IOP redn. between combination 50, combination 10, latanoprost and timolol was significant in favor of combination 50. There was also a significant difference between latanoprost and timolol, in favor of latanoprost. All the treatments were generally well tolerated. This study indicates that a fixed combination of latanoprost 0.005% and timolol 0.5% could be useful in the treatment of glaucoma.

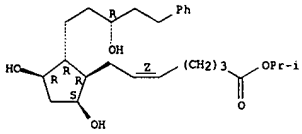
IT **130209-82-4**, Latanoprost
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(open-angle glaucoma of humans treatment by timolol plus)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 9 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 9 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:540901 CAPLUS
DOCUMENT NUMBER: 129:239859
TITLE: The pharmacokinetics of a new antiglaucoma drug, latanoprost, in the rabbit
AUTHOR(S): Sjoquist, B.; Basu, S.; Byding, P.; Bergh, K.; Stjernschantz, J.
CORPORATE SOURCE: Glaucoma Research Laboratories, Pharmacia and Upjohn, USA
SOURCE: Drug Metabolism and Disposition (1998), 26(8), 745-754
CODEN: DMDSAI; ISSN: 0090-9556
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Latanoprost (13, 14-dihydro-17-phenyl-18,19,20-trinor-prostaglandin F2.alpha.-1-iso-Pr ester) is a unique prostaglandin analog developed for the treatment of glaucoma. To investigate the pharmacokinetics, tritium-labeled latanoprost was administered topically on the eyes of rabbits and i.v. About 7.7% of the applied dose was found in the cornea at 15 min after the drug administration. The following Cmax and elimination half-life (interval 1-6 h) values of the total radioactivity in the eye tissues were found: aq. humor, 0.09 ng Eq/mL and 3.0 h; anterior sclera, 1.49 ng Eq/mg and 1.8 h; cornea, 1.59 ng Eq/mg and 1.8 h; ciliary body, 0.39 ng Eq/mg and 2.8 h; conjunctiva, 1.41 ng Eq/mg and 1.4 h; and iris, 0.39 ng Eq/mg and 2.1 h. Latanoprost was rapidly hydrolyzed, and most of the radioactivity found in the aq. humor, anterior eye tissues, and plasma corresponded to the pharmacol. active acid of latanoprost. The initial plasma elimination half-life of the acid of latanoprost was 9.2 min after i.v. and 2.3 min after topical administration on the eyes. The plasma clearance of the acid of latanoprost was 1.8 L/h.cntdot.kg, and the vol. of distribution was 0.4 L/kg after i.v. administration. Based on the retention times on HPLC and GC-MS, the main metabolite in urine and feces was identified as the 1,2,3,4-tetranor metabolite of acid of latanoprost. This acid existed in equilibration with the corresponding .delta.-lactone. The AUC of radioactivity in the eye tissues was approx. 1000 times higher than in plasma AUC. The recovery of radioactivity was complete.

IT **130209-82-4**, Latanoprost
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(the pharmacokinetics of a new antiglaucoma drug, latanoprost, in the rabbit)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 10 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:493732 CAPLUS
DOCUMENT NUMBER: 129:131238
TITLE: Screening method for agents for treatment of eye disorders
INVENTOR(S): Trier, Klaus
PATENT ASSIGNEE(S): Klaus Trier Aps, Den.; Trier, Klaus
SOURCE: PCT Int. Appl., 100 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9830900	A2	19980716	WO 1998-DK1	19980105
WO 9830900	A3	19981210		
W: AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9853121	A1	19980803	AU 1998-53121	19980105
PRIORITY APPLN. INFO.:			DK 1997-9	19970106
			DK 1997-823	19970707
			DK 1997-1383	19971201
			WO 1998-DK1	19980105

OTHER SOURCE(S): MARPAT 129:131238

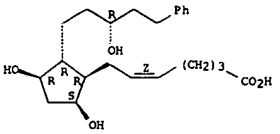
AB A method is provided for identification of substances which are applicable for treatment or prevention of an insufficient longitudinal growth of the eye (hypermetropia) or for treatment or prevention of an excessive longitudinal growth of the eye (myopia); substances identified by the method for treating or preventing conditions related to the longitudinal growth of the eye; substances and mixts. of substances for the prepn. of a pharmaceutical compn. for the treatment or prevention of abnormal growth of the axial length of the eye. The identification involves measuring the effect of the substances on the retinal pigment epithelium of the eye, e.g. by detecting the metabolic effect of the substance on the retinal epithelium, the effect on the standing potential or the effect on the proteoglycans of the scleral tissue of the eye, by way of EOG examn., by way on the size of the so-called c-wave in ERG-recordings, or by the state of the Ca2+-channels or on the [3H]-ryanodine receptors of the retinal pigment epithelium.

IT **41639-83-2**, PhXA85 **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(screening method for agents for treatment of eye disorders)

RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

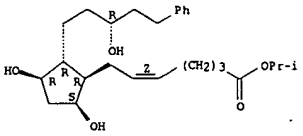
Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 10 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

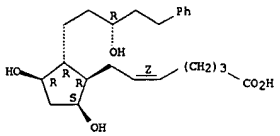
Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 11 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:454319 CAPLUS
DOCUMENT NUMBER: 129:170893
TITLE: Pharmacological characterization of an FP prostaglandin receptor on rat vascular smooth muscle cells (A7r5) coupled to phosphoinositide turnover and intracellular calcium mobilization
AUTHOR(S): Griffin, Brenda W.; Magnino, Peggy E.; Pang, Iok-Hou; Sharif, Najam A.
CORPORATE SOURCE: Molecular Pharmacology Unit, Alcon Laboratories, Inc., Fort Worth, TX, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics (1998), 286(1), 411-418
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An FP prostaglandin (PG) receptor on the A7r5 rat aorta smooth muscle cell line has been characterized by assays of phosphoinositide (PI) turnover and intracellular calcium mobilization stimulated by structurally diverse PGs. In the PI turnover assay, cloprostenol was the most potent PG tested, with a potency (EC50) of 0.84 nM, and was a full agonist. Other known FP receptor agonists tested in this assay had efficacies .gtoreq.85% of the cloprostenol value and high potencies: 16-phenoxy PGF2.alpha. (2.05 nM), 17-Ph PGF2.alpha. (2.80 nM), fluprostenol (4.45 nM), PGF2.alpha. (30.9 nM) and PhXA85 (43.5 nM). Other classes of PGs evaluated (PGD2, enprostil, 17-Ph PGE2, PGE2, sulprostone and U-46619) were less potent and less efficacious than the FP receptor agonists, or were inactive. For a large group of std. PGs evaluated in the PI turnover assay, both potencies and efficacies correlated well with those reported for the FP receptor of Swiss mouse 3T3 fibroblasts. The potencies of fluprostenol and PGF2.alpha. as stimuli of intracellular calcium mobilization matched well their potencies in the PI turnover assay, but fluprostenol had twice the efficacy of PGF2.alpha.. Both signaling responses stimulated by fluprostenol were significantly inhibited by U73122, a selective inhibitor of phosphoinositide turnover (IC50 = 1.25 .mu.M for PI turnover), and by chelation of calcium in the medium. Together with the PI turnover data, these studies of intracellular calcium mobilization linked to activation of the FP receptor, provide addnl. characterization of the pharmacol. properties of this receptor.
IT **41639-83-2**, PhXA85
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(FP prostaglandin receptor on rat vascular smooth muscle cells coupled to phosphoinositide turnover and intracellular calcium mobilization)
RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

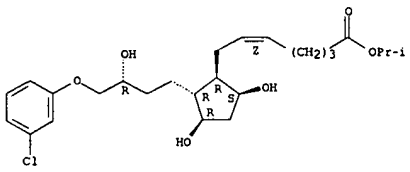
L18 ANSWER 11 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 12 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:377329 CAPLUS
DOCUMENT NUMBER: 129:72295
TITLE: HPLC analysis of some synthetic prostaglandin compounds of therapeutic interest
AUTHOR(S): Radulescu, Valeria; Doneanu, Catalin; Mandruta, Cristina; Cocu, Florea
CORPORATE SOURCE: Dep. Org. Chem., Faculty Pharmacy, Bucharest, Rom.
SOURCE: Revue Roumaine de Chimie (1997), 42(12), 1129-1135
CODEN: RRCHAX; ISSN: 0035-3930
PUBLISHER: Editura Academiei Romane
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The sepn. of some synthetic structure analogs of natural prostaglandins PGF2.alpha., PGE2 was performed. A Beckman HPLC system equipped with inverse phase columns (Ultrasphere ODS 5.mu.m) and with diode array detection was used with different mobile phases (methanol: water, methanol; 0.75% acetic acid aq. soln. and methanol: 0.02 M phosphate buffer). The optimal exptl. conditions in relation with the chem. structure of each prostaglandin compd. were established. The quant. detn. of active compds. in the presence of different stereoisomers was also studied. The results of these studies were extended to quant. detn. of active prostaglandin compds. in pharmaceutical prepns. (injectable solns. and collyria).
IT **157283-76-6**, 15-epi-13,14-Dihydrocloprostenol isopropyl ester
RL: ANT (Analyte); ANST (Analytical study)
(detn. of synthetic prostaglandins by HPLC anal.)
RN 157283-76-6 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(3R)-4-(3-chlorophenoxy)-3-hydroxybutyl]-3,5-dihydroxycyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

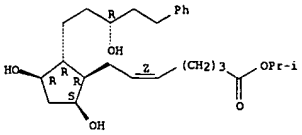
Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 13 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:298382 CAPLUS
DOCUMENT NUMBER: 128:289654
TITLE: Prostaglandin-related compound. Latanoprost and others
AUTHOR(S): Suzuki, Masanobu
CORPORATE SOURCE: Sch. Med., Hiroshima Univ., Hiroshima, 734, Japan
SOURCE: Atarashii Ganka (1998), 15(4), 475-480
CODEN: ATGAEX; ISSN: 0910-1810
PUBLISHER: Medikaru Ai Shuppan
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review with 12 refs., on (1) structure and action mechanism of latanoprost (PGF2.alpha. analog), (2) clin. efficacy, dose, adverse effects of latanoprost eye drops, and (3) additive effects in combination of latanoprost and other antiglaucoma agents. Intraocular pressure-lowering effects of other PG analogs (RS18492, BW245C, PGF2.alpha. tromethamine salt, PGF2.alpha. iso-Pr ester, S-1033, PhXA34, etc.) are summarized.
IT **130209-82-4**, Latanoprost
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(intraocular pressure-lowering effects of latanoprost and other PG-related compds.)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

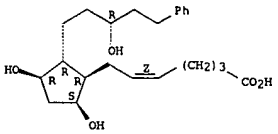
Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 14 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:258236 CAPLUS
DOCUMENT NUMBER: 129:12888
TITLE: Effects of prostaglandin E2, F2.alpha., and latanoprost acid on isolated ocular blood vessels in vitro
AUTHOR(S): Astin, Maria
CORPORATE SOURCE: Glaucoma Research Laboratories, Pharmacia and Upjohn, Uppsala, Swed.
SOURCE: Journal of Ocular Pharmacology and Therapeutics (1998), 14(2), 119-128
CODEN: JOPTFU; ISSN: 1080-7683
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The vascular effects of PGE2, PGF2.alpha. and latanoprost acid on isolated bovine long posterior ciliary arteries and episcleral veins have been investigated using a small vessel myograph. PGE2 caused vasorelaxation both in the ciliary artery and episcleral vein (EC50: 7.9 .times. 10-9 M and 2.1 .times. 10-8 M resp.). Blockade of thromboxane receptors with GR 32191B, a TP receptor antagonist, shifted the concn.-response curves to the left in both prepns., probably indicating a slight costimulation of TP receptors in these vessels. Blockade of tachykinin NK-1 receptors had no effect on the PGE2 concn.-response curve. PGF2.alpha. caused a concn. dependent contraction in half of the ciliary arteries examd. and relaxation in the other half. In the presence of the thromboxane receptor antagonist (GR 32191B) PGF2.alpha. always induced relaxation of the ciliary artery (EC50:1.3 .times. 10-5 M). At higher concns. PGF2.alpha. tended to slightly constrict the episcleral veins, but in the presence of the TP receptor antagonist (GR 32191B) only relaxation was obsd. Latanoprost acid contracted the ciliary artery at concns. above 10-6 M. This effect was completely abolished by the TP receptor antagonist (GR 32191B). In the episcleral vein latanoprost acid induced a slight relaxation but in the presence of the TP receptor antagonist (GR 32191B) no effect was obsd. These results indicate that PGE2 invariably induces vasorelaxation of bovine ciliary arteries and episcleral veins, whereas both PGF2.alpha. and latanoprost acid at high concns. can cause vasoconstriction probably by stimulating TP receptors. PGF2.alpha. causes marked relaxation of both ciliary arteries and episcleral veins in the presence of the TP blocker which seems unlikely to be mediated by FP receptors.
IT **41639-83-2**, Latanoprost acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effects of prostaglandin E2, F2.alpha., and latanoprost acid on isolated ocular blood vessels in vitro)
RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 14 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

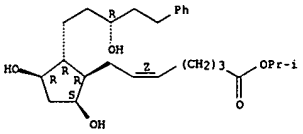


REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 15 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:247618 CAPLUS
DOCUMENT NUMBER: 129:23382
TITLE: A comparative study of latanoprost (Xalatan) and isopropyl unoprostone (Rescula) in normal and glaucomatous monkey eyes
AUTHOR(S): Serle, Janet B.; Podos, Steven M.; Kitazawa, Yoshiaki; Wang, Rong-Fang
CORPORATE SOURCE: Dep. Ophthalmology, Mount Sinai Sch. Medicine, New York, NY, 10029, USA
SOURCE: Japanese Journal of Ophthalmology (1998), 42(2), 95-100
CODEN: JJOPA7; ISSN: 0021-5155
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Latanoprost (PhXA41, Xalatan) and iso-Pr unoprostone (UF-021, unoprostone, Rescula) two new prostanoid derivs., have been shown to reduce intraocular pressure (IOP) significantly in patients with glaucoma or ocular hypertension. This study was designed to compare the ocular hypotensive effects of latanoprost and unoprostone in cynomologus monkeys with glaucoma and characterizes the prostanoid's mechanisms of action in normal cynomologus monkey eyes. Intraocular pressure was measured daily at 0, 0.5 and 1 h and hourly for 5 addnl. hours during 1 baseline day, 1 vehicle-treated day, and 5 days of therapy with either 0.005% latanoprost or 0.12% unoprostone applied twice daily, at 9:30 am and 3:30 pm, to the glaucomatous eye of eight monkeys with unilateral laser-induced glaucoma. Outflow facility was measured in six normal monkeys 3 h prior to dosing and 1 h after unilateral dosing with either drug. Aq. humor flow rates were measured in six normal monkeys hourly for 4 h on 1 baseline day nd on 1 treatment day beginning 1 h after administration of either drug to one eye. Intraocular pressure was significantly ($P < 0.005$) reduced after the first application for 4 h with latanoprost and for 2 h with unoprostone, up to 5.4 .+-. 0.8 mm Hg (mean .+-. SEM) (latanoprost) and 3.8 .+-. 0.5 mm Hg (unoprostone). Intraocular pressure was significantly ($P < 0.005$) reduced for at least 18 houres following each pm dose of latanoprost. Intraocular pressure was not reduced ($P > 0.05$) 18 h after each pm dose of unoprostone. An enhancement of the ocular hypotensive effect was obsd. from day 1 to 5 with repeated dosing of either drug. Latanoprost produce a greater magnitude of IOP redn. for a longer duration of time than unoprostone after each application. Neither drug altered outflow facility or aq. humor flow rates. Latanoprost and unoprostone appear to reduce IOP in monkey by enhancing uveoscleral outflow. Latanoprost appears to be more efficacious and potent than unoprostone in reducing IOP in glaucomatous monkey eyes.
IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(latanoprost and iso-Pr unoprostone effect in normal and glaucomatous monkey eyes)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 15 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



L18 ANSWER 16 OF 95 CAPLUS COPYRIGHT 2003 ACS

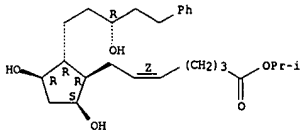
ACCESSION NUMBER: 1998:36147 CAPLUS
DOCUMENT NUMBER: 128:84655
TITLE: Effects of prostaglandin-related drug on intraocular pressure and blood-aqueous barrier in rabbits
AUTHOR(S): Taniguchi, Toru; Kawakami, Hideaki; Tsuji, Akira; Sugiyama, Kazuhisa; Kitazawa, Yoshiaki
CORPORATE SOURCE: Sch. Med., Gifu Univ., Gifu, 500, Japan
SOURCE: Atarashii Ganka (1997), 14(12), 1831-1833
CODEN: ATGAEX; ISSN: 0910-1810
PUBLISHER: Medikaru Ai Shuppan
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB The effects of latanoprost, a selective prostaglandin F2.alpha. (FP) receptor agonist, on intraocular pressure (IOP) and blood-aq. barrier were studied in albino rabbits. One eye received 0.005% latanoprost topically; the contralateral eye received vehicle only. IOP and aq. protein concn. were measured following administration. Latanoprost caused only a slight IOP redn. of 0.88 .+-. 0.6 (SE) mmHg (n = 11, NS) at max. Aq. protein concn. in the latanoprost-treated eyes was 70.3 .+-. 19.7 mg/dL (n = 5), which was not significantly different from that in the contralateral eyes (54.7 .+-. 10.8 mg/dL). FP receptor stimulation is therefore unrelated to IOP redn. or blood-aq. barrier disruption in rabbits.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effect of latanoprost, selective prostaglandin F2.alpha. receptor agonist, on intraocular pressure and blood-aq. humor barrier)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 17 OF 95 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:808027 CAPLUS
DOCUMENT NUMBER: 128:111097
TITLE: Mechanism of prostaglandin E2-, F2.alpha.- and latanoprost acid-induced relaxation of submental veins
AUTHOR(S): Astin, Maria; Stjernschantz, Johan
CORPORATE SOURCE: Pharmacia and Upjohn, Glaucoma Research Laboratories, S-751 82 Uppsala, Swed.
SOURCE: European Journal of Pharmacology (1997), 340(2/3), 195-201
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

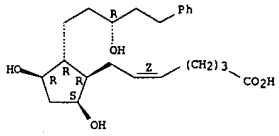
AB The mechanism of prostaglandin E2-, prostaglandin F2.alpha.- and latanoprost acid (13,14-dihydro-17-phenyl-18,19,20-trinor-prostaglandin F2.alpha.)-induced relaxation of the rabbit submental vein was studied. Prostaglandin E2 caused max. relaxation of endothelin-1 precontracted vessels (EC50: 1.8.times.10-8 M). Much of the relaxation could be abolished by denuding the endothelium with the nitric oxide synthase inhibitor, l-NAME (NG-Nitro-l-arginine Me ester). CGRP-(8-37) (calcitonin gene-related peptide fragment (8-37)), a calcitonin gene-related peptide receptor antagonist, exhibited a partial blocking effect, whereas the tachykinin NK1 receptor blocker, GR 82334 ([d-Pro9[Spiro-.gamma.-Lactam]Leu10,Trp11]physalemin (1-11)), markedly attenuated the response. Both prostaglandin F2.alpha. and the relatively selective FP receptor agonist, latanoprost acid, caused relaxation of the veins to about 50 of the precontracted state in the presence of GR 32191B ([1R-[1.alpha.(Z),2.beta.,3.beta.,5.alpha.]]-(+)-7-[5-([1,1'-biphenyl]-4-ylmethoxy)-3-hydroxy-2-(1-piperidinyl)cyclopentyl]-4-heptenoic acid), a thromboxane receptor antagonist (EC50: for prostaglandin F2.alpha. 7.9.times.10-9 M, and for latanoprost acid 4.9.times.10-9 M). l-NAME, as well as denuding the endothelium, completely abolished the effect. In addn., most or at least a large part of the relaxation was also blocked by CGRP-(8-37) as well as GR 82334. These results indicate that the FP receptor-mediated relaxation of veins is based on release of nitric oxide in addn. to involvement of calcitonin gene-related peptide and substance P, or some other tachykinin, probably released from perivascular sensory nerves. The more pronounced relaxation induced by prostaglandin E2 could be due to vasodilator EP receptors in the smooth muscle layer of the veins.

IT **41639-83-2**, Latanoprost acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(mechanism of prostaglandin E2-, F2.alpha.- and latanoprost acid-induced relaxation of submental veins)

RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 17 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



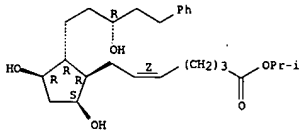
L18 ANSWER 18 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:718933 CAPLUS
DOCUMENT NUMBER: 128:10290
TITLE: Effects on intraocular pressure and aqueous flow of various dose regimens of latanoprost in human eyes
AUTHOR(S): Linden, Christina; Alm, Albert
CORPORATE SOURCE: Dep. Ophthalmology, Umea Univ., Umea, Swed.
SOURCE: Acta Ophthalmologica Scandinavica (1997), 75(4), 412-415
CODEN: AOSCFV; ISSN: 1395-3907
PUBLISHER: Scriptor
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Different dose regimens of latanoprost were examd. to see if they cause a difference in daytime intraocular pressure (IOP) in normal eyes and if such changes could be attributed to an increase in aq. flow. In a randomized, open, cross-over study latanoprost 50 .mu.g/mL was instilled in one eye of 18 volunteers. Three dose regimens (one/three drops once daily or one drop twice daily) were evaluated. IOP was measured at the end of each 14-day treatment period. Aq. flow and endothelial permeability were assessed by fluorophotometry. All dose regimens reduced IOP significantly ($p<0.001$). Once daily applications reduced IOP more than twice daily ($p < 0.01$). No statistically significant difference in aq. flow was detected between different treatments. One drop daily increased aq. flow compared with control eyes ($p<0.05$). A similar, but not statistically significant tendency was present with the other regimens. Corneal endothelial permeability was not affected. Once daily applications of latanoprost reduce IOP more effectively than twice daily in normal subjects. This cannot be explained by an increase in aq. flow.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(dose regimens affect on latanoprost antiglaucoma activity in humans)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 19 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:604261 CAPLUS
DOCUMENT NUMBER: 127:272765
TITLE: Latanoprost for uncontrolled glaucoma in a composite case protocol
AUTHOR(S): Patelska, Bogna; Greenfield, David S.; Liebmann, Jeffrey M.; Wang, Martin; Kushnick, Howard; Ritch, Robert
CORPORATE SOURCE: Departments of Ophthalmology, New York Eye and Ear Infirmary, New York, NY, USA
SOURCE: American Journal of Ophthalmology (1997), 124(3), 279-286
CODEN: AJOPAA; ISSN: 0002-9394
PUBLISHER: Ophthalmic Publishing Co
DOCUMENT TYPE: Journal
LANGUAGE: English

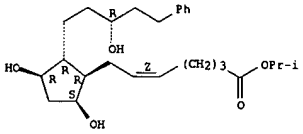
AB Our aim was to evaluate the ocular hypotensive response of latanoprost 0.0005% administered as adjunctive therapy in patients with glaucoma who were receiving maximal tolerated medical therapy. Consecutive patients entering a latanoprost compassionate clin. trial were enrolled at two sites. Latanoprost 0.005% was administered as a single drop between 6 and 8 PM, and all other medications were continued. Intraocular pressure was measured between 2 and 4 PM. Responders were defined as having a redn. in intraocular pressure of at least 20% from baseline. In 160 eyes of 160 patients, mean baseline intraocular pressure .+-. SD was 23.3.+-.6.9 mm Hg. Intraocular pressure was significantly reduced compared with baseline measurements ($P<.01$) with mean intraocular pressure measurement redns. of 4.1.+-.5.2, 4.0.+-.6.3, and 3.7.+-.4.2 mm Hg at the 1-, 3-, and 6-mo intervals, resp. A redn. in intraocular pressure of at least 20% was obsd. in 64 (44.4%) of 144 patients, 46 (43.0%) of 107 patients, and 10 (32.3%) of 31 patients at the 1-, 3-, and 6-mo visits, resp. A 40% redn. in intraocular pressure was obsd. in 18 (12.5%) of 144 and nine (8.4%) of 107 patients at 1 and 3 mo, resp. Mean redn. in intraocular pressure was similar in the miotic and nonmiotic groups ($P>.4$ at all intervals). Eight patients (5.0%) developed ocular allergy or irritation necessitating cessation of latanoprost therapy. Latanoprost 0.005% may provide significant further intraocular pressure redn. in patients already receiving maximal tolerated medical therapy.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(latanoprost for uncontrolled glaucoma in a composite case protocol)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 19 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



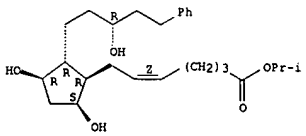
L18 ANSWER 20 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:534255 CAPLUS
DOCUMENT NUMBER: 127:199533
TITLE: Glaucoma therapy with prostaglandin derivative latanoprost
AUTHOR(S): Hoc, Siegfried
CORPORATE SOURCE: Olching, Germany
SOURCE: Deutsche Apotheker Zeitung (1997), 137(33), 2848-2850
CODEN: DAZEA2; ISSN: 0011-9857
PUBLISHER: Deutscher Apotheker Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: German

AB A review with 1 ref. is given on long-term effects, side-effects, and combined therapy of glaucoma with latanoprost.

IT **130209-82-4**, Latanoprost
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glaucoma therapy with)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 21 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:525321 CAPLUS
DOCUMENT NUMBER: 127:186102
TITLE: Latanoprost and physostigmine have mostly additive ocular hypotensive effects in human eyes
AUTHOR(S): Linden, Christina; Alm, Albert
CORPORATE SOURCE: Departments of Ophthalmology, Umea University, Umea, Swed.
SOURCE: Archives of Ophthalmology (Chicago) (1997), 115(7), 857-861
CODEN: AROPAW; ISSN: 0003-9950
PUBLISHER: American Medical Association
DOCUMENT TYPE: Journal
LANGUAGE: English

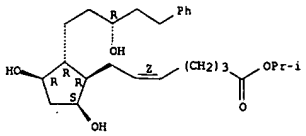
AB The authors investigated if a pronounced ciliary muscle contraction, induced by physostigmine salicylate, can abolish the ocular hypotensive effect of latanoprost, a prostaglandin analog, via inhibition of the uveoscleral outflow. A randomized, crossover study that was double-masked for latanoprost was done. Physostigmine was the second factor in a 22 factorial expt. A total of 20 male and female healthy volunteers (median age, 25 yr; age range, 17-30 yr) were used. Between 7 AM and 7 PM, 1 drop of physostigmine salicylate (8 mg/mL) was instilled in 1 eye every other hour. At 8 AM, 1 drop of either latanoprost (50 mg/L) or placebo was instilled in both eyes. This protocol was repeated a second time with latanoprost administered to previously placebo-treated eyes and vice versa. Intraocular pressure differences were measured with Goldmann applanation tonometry hourly for 13 h. Latanoprost reduced the intraocular pressure significantly at 3 to 12 h after application with a maximal effect at 8 h after the administration of the dose. The redn. that was obtained with physostigmine administered every other hour was more pronounced, was obsd. at 1 h after the administration of the first dose, and increased throughout the day. A significant interaction was seen between 3 and 6 PM (ie, at 7-10 h after application of latanoprost). Latanoprost and physostigmine have a mainly additive ocular hypotensive effect. Thus, high doses of physostigmine did not abolish the eye pressure-lowering effect of latanoprost, but some interaction was seen at low intraocular pressures. It was concluded that any mech. effect on the uveoscleral flow achieved with physostigmine is short-lasting compared with the effect obtained with latanoprost, and that latanoprost and miotics can be combined.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(latanoprost and physostigmine have mostly additive ocular hypotensive effects in human eyes)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 21 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



L18 ANSWER 22 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:318479 CAPLUS
DOCUMENT NUMBER: 127:29486
TITLE: FP prostaglandin receptors mediating inositol phosphates generation and calcium mobilization in Swiss 3T3 cells: a pharmacological study
AUTHOR(S): Griffin, B. W.; Williams, G. W.; Crider, J. Y.; Sharif, N. A.
CORPORATE SOURCE: Molecular Pharmacology Unit, Alcon Laboratories, Inc., Fort Worth, TX, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics (1997), 281(2), 845-854
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

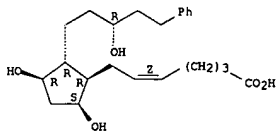
AB A detailed pharmacol. characterization of the prostaglandin (PG) receptor coupled to phosphoinositide (PI) turnover and intracellular calcium mobilization in Swiss 3T3 mouse fibroblast cells was undertaken. The pharmacol. profile of this functional receptor was compared with the pharmacol. profile of specific [3H]PGF2.alpha. binding to bovine corpus luteum membranes, which are known to contain a bona fide FP receptor. PGs that were potent stimulators and full agonists in the PI turnover assay in the 3T3 cells were the following:16-phenoxy-PGF2.alpha. (EC50 = 0.61.+-.0.1 nM), cloprostenol (EC50 = 0.73.+-.0.04 nM), 17-phenyl-PGF2.alpha. (EC50 = 2.71.+-.0.35 nM), fluprostenol (EC50 = 3.67.+-.0.61 nM), PhXA85 (EC50 = 27.3.+-.5.63 nM) and PGF2.alpha. (EC50 = 28.5.+-.5.26 nM). However, PGD2 (EC50 = 155.+-.29.9 nM; Emax = 49% of cloprostenol), PGE2 (EC50 = 2570.+-.566 nM; Emax = 59%) and U46619 (EC50 = 1060.+-.310 nM; Emax = 63%) were less potent and were partial agonists, and iloprost and BW245C were inactive. Although the PGs tested exhibited lower affinities in the [3H]PGF2.alpha. binding assay than their functional potencies in the PI turnover assay, the rank orders of potencies and affinities were well correlated (r = 0.94; compds.). However, the PI turnover assay was more sensitive than the calcium mobilization assay for rank ordering PG agonists. In conclusion, the Swiss 3T3 cells express an FP receptor coupled to PI turnover and intracellular Ca++ mobilization signal transduction pathways. The pharmacol. profile of this receptor was similar to that of the FP receptor found in the bovine corpus luteum, a tissue previously used to clone the first pharmacol. defined FP receptor.

IT **41639-83-2**, PhXA85
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(FP prostaglandin receptors mediating inositol phosphates generation and calcium mobilization in Swiss 3T3 cells: a pharmacol. study)

RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

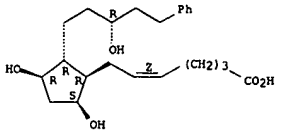
L18 ANSWER 22 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



L18 ANSWER 23 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:176612 CAPLUS
DOCUMENT NUMBER: 126:258397
TITLE: Development of a radioimmunoassay for latanoprost and its application in a long-term study in monkeys
AUTHOR(S): Basu, S.; Sjoequist, B.
CORPORATE SOURCE: Prostaglandin Research, Pharmacia and Upjohn, Uppsala, S-751 82, Swed.
SOURCE: Prostaglandins, Leukotrienes and Essential Fatty Acids (1996), 55(6), 427-432
CODEN: PLEAEU; ISSN: 0952-3278
PUBLISHER: Churchill Livingstone
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 13,14-Dihydro-17-phenyl-18, 19,20-trinor-PGF2.alpha.-iso-Pr ester (latanoprost) is a new prostaglandin drug developed for the treatment of glaucoma. In clin. trials a daily dose of 1.5 .mu.g is effective in reducing the intraocular pressure. In toxicol. studies doses from 2 .mu.g/eye to 100 .mu.g/eye have been used in various species. This paper reports the development and validation of a RIA of latanoprost acid (PhXA85) and its application to toxicokinetic studies performed in monkeys. An antiserum was raised in rabbits by immunization with PhXA85 coupled to BSA at the carboxylic acid by the mixed anhydride method. The antibody titer was found to be about 1:2000 to 1:3000. The cross-reactivity with 13,14-dihydro-15(R,S)-17-phenyl-trinor-PGF2.alpha., 13,14-dihydro-15(S)-17-phenyl-trinor-PGF2.alpha., dinor-PhXA85, 17-phenyl-trinor-PGF2.alpha., latanoprost and PGF2.alpha. was 46.4, 4.2, 7.6, 2.2, 0.1 and 0.039%, resp. The intra-assay precision was between .+-. 7.7 and 11.7% (CV) at the level of 320 pg/mL and .+-. 8.3 and 9.7% with 1280 pg/mL in plasma samples from man, monkey, rat and aq. humor from human and rabbit. Similarly, the intra-assay accuracy varied between 95.9 and 102.5% and 89.0 and 109.0% for the low and high stds., resp. The inter-assay precision and accuracy were between .+-. 6.0 and 13.4% and 91.0 and 92.8% in the monkey plasma samples. The limit of detection was 3 pg/tube or 30 pg/mL. In a long-term study, the acid of latanoprost was rapidly cleared from plasma in monkeys treated with eye drops of latanoprost (2 .times. 3 .mu.g/day) over a period of 1 yr.
IT **41639-83-2**, PhXA85 **130209-82-4**, Latanoprost
RL: ANT (Analyte); ANST (Analytical study)
(development of a RIA for latanoprost and its application in a long-term study in monkeys)
RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

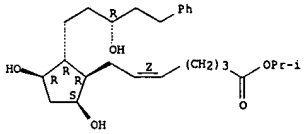
Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 23 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

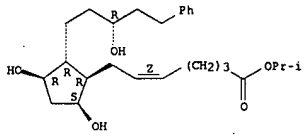
Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 24 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:109178 CAPLUS
DOCUMENT NUMBER: 126:181321
TITLE: The effect of latanoprost 0.005% once daily versus 0.0015% twice daily on intraocular pressure and aqueous humor protein concentration in glaucoma patients. A randomized, double-masked comparison with timolol 0.5%
AUTHOR(S): Diestelhorst, Michael; Roters, Sigrid; Krieglstein, Guenter K.
CORPORATE SOURCE: Department of Ophthalmology, University of Cologne, Cologne, D-50931, Germany
SOURCE: Graefe's Archive for Clinical and Experimental Ophthalmology (1997), 235(1), 20-26
CODEN: GACODL; ISSN: 0721-832X
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Latanoprost is a PGF2.alpha. analog which reduces the intraocular pressure (IOP) by increasing the uveoscleral outflow. The objective of this study was to investigate the effect of two different regimens of latanoprost on the diurnal IOP and also the effect of latanoprost on the blood-aq. barrier measured with a laser flare cell meter (Kowa FM-500). Moreover, the safety aspects of the two regimens regarding hyperemia were studied. A double-masked, randomized study was performed in 30 patients (9 males, 21 females; mean age 61.9 yr) with primary open-angle glaucoma or pseudoexfoliation glaucoma. Twenty patients were treated with latanoprost 0.0015% twice daily or 0.005% once daily for 3 wk in a cross-over design. Ten patients received timolol 0.5% twice daily as control. Latanoprost 0.005% once daily reduced IOP (.+-. SEM) more effectively than latanoprost 0.0015% twice daily (9.8.+-.0.9 mm Hg and 6.7.+-.0.9 mm Hg, resp.). There was a statistically significant increase in the aq. humor protein concn. within the timolol group (P=0.004), but not within the latanoprost group (P=0.97). There was no statistically significant difference in the change in aq. humor protein concn. from baseline between latanoprost and timolol groups (P=0.08). No statistically significant difference in conjunctival hyperemia between the two latanoprost regimens was found (P=0.37). Latanoprost 0.005% once daily reduced IOP more effectively than latanoprost 0.0015% twice daily (P<0.001). Latanoprost had no statistically or clin. significant effect on the blood-aq. barrier. There was no difference in hyperemia between the two regimens. Both concns. of latanoprost reduced IOP at least as well as timolol 0.5% eye drops.
IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effect of latanoprost 0.005% once daily vs. 0.0015% twice daily in comparison with timolol 0.5% on intraocular pressure and aq. humor protein concn. in glaucoma human patients)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

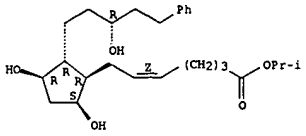
L18 ANSWER 24 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



L18 ANSWER 25 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:25472 CAPLUS
DOCUMENT NUMBER: 126:99076
TITLE: A comparative study of the effects of timolol and latanoprost on blood flow velocity of the retrobulbar vessels
AUTHOR(S): Nicolela, Marcelo T.; Buckley, Anne R.; Walman, Brenda E.; Drance, Stephen M.
CORPORATE SOURCE: Department Ophthalmology, University British Columbia, Vancouver, BC, V6T 2B5, Can.
SOURCE: American Journal of Ophthalmology (1996), 122(6), 784-789
CODEN: AJOPAA; ISSN: 0002-9394
PUBLISHER: Ophthalmic Publishing Co
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aim of this study was to examine the effects of topical timolol and latanoprost on retrobulbar vessel blood velocity in patients with glaucoma or ocular hypertension. Nine patients with primary open-angle glaucoma and six patients with ocular hypertension were enrolled for this study. All patients were treated topically with 0.5% timolol or 0.005% latanoprost, using a double-masked crossover design with a 3-wk washout before administration of each drug. Each patient had a baseline color Doppler imaging ultrasound of the central retinal artery, short posterior ciliary arteries, and ophthalmic artery and two other ultrasound examns. during the 1-wk treatment with each drug, performed 12 h after the first dose of the drug and 12 h after the last dose, 7 days later. Both topical timolol and topical latanoprost significantly reduced the intraocular pressure. The only significant change obsd. in the retrobulbar blood velocity with timolol was a redn. of end diastolic velocity in the ophthalmic artery 12 h after the first dose, accompanied by a trend toward a decrease in the peak systolic velocity and an increase in the resistance index in the same vessel. No change in blood velocity was obsd. with latanoprost. Topical timolol and latanoprost significantly reduced the intraocular pressure in ocular hypertensive and glaucoma patients without creating substantial hemodynamic changes in the retrobulbar vessels.
IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of timolol and latanoprost on blood flow velocity of the retrobulbar vessels in humans)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

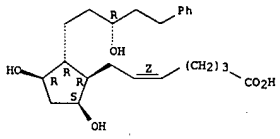
L18 ANSWER 25 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



L18 ANSWER 26 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:575884 CAPLUS
DOCUMENT NUMBER: 125:239221
TITLE: Prostaglandin F2.alpha. and its analogs induce release of endogenous prostaglandins in iris and ciliary muscles isolated from cat and other mammalian species
AUTHOR(S): Yousufzai, Sardar Y. K.; Ye, Zhi; Abdel-Latif, Ata A.
CORPORATE SOURCE: Dep. of Biochemistry and Mol. Biology, Medical College of Georgia, Augusta, GA, 30912-2100, USA
SOURCE: Experimental Eye Research (1996), 63(3), 305-310
CODEN: EXERA6; ISSN: 0014-4835
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Prostaglandin F2.alpha. (PGF2.alpha.) and its analog latanoprost are effective in lowering intraocular pressure (IOP) in both animal and human subjects. There is mounting exptl. evidence now which indicates that the IOP-lowering effect of these PGs occurs through an increased uveoscleral outflow of aq. humor. The ciliary muscle constitutes the main resistance in this pathway. Work from several labs., including our own, has shown that in this smooth muscle PGF2.alpha. has little effect on cAMP accumulation or on Ca2+ mobilization. In the present study, we hypothesized that some of the effects of PGF2.alpha. and its analogs may be mediated through the release of endogenous PGs. The purpose of this work was to det. whether or not PGF2.alpha. and its analogs can enhance the release of endogenous PGs in iris and ciliary muscles isolated from different species. This report documents for the first time that exogenous PGF2.alpha. and its analogs, PhXA85 and latanoprost, stimulate the formation of PGE2, PGD2 and PGF2.alpha. in iris and ciliary muscles isolated from cat, bovine, rabbit, dog, rhesus monkey and human. PG-induced PG release was demonstrated by means of both RIA and radiochromatog. Kinetic studies on cat iris revealed that PGF2.alpha.-induced PGE2 release is time (t1/2 = 1.7 min) and dose-dependent (EC50 = 45 nM). The increase in PGE2 release was blocked by indomethacin (Indo) and by dexamethasone in a dose-dependent manner with IC50s of 9.2 nM and 2.6 .mu.M, resp. Furthermore, dexamethasone inhibited arachidonic acid (AA) release, suggesting the involvement of phospholipase A2 in PGF2.alpha.-induced PG release. The data presented demonstrate that PGF2.alpha. and its analogs interact with the PG receptor to stimulate phospholipase A2 and release AA for PG synthesis. Relaxation of ciliary muscle by PGF2.alpha. and its analogs, via release of endogenous PGE2, a potent activator of the adenylate cyclase system, could in part explain how these PGs may increase uveoscleral outflow and consequently lower IOP.
IT **41639-83-2**, PhXA85 **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(PGF2.alpha. and its analogs induce release of endogenous prostaglandins in iris and ciliary muscles isolated from cat and other mammalian species)
RN 41639-83-2 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

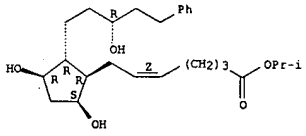
Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 26 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 27 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:517143 CAPLUS
DOCUMENT NUMBER: 125:158578
TITLE: A comparison of latanoprost and timolol in primary open-angle glaucoma and ocular hypertension: A 12-week study
AUTHOR(S): Mishima, Hiromu K.; Masuda, Kanjiro; Kitazawa, Yoshiaki; Azuma, Ikuo; Araie, Makoto
CORPORATE SOURCE: Department Ophthalmology, Hiroshima University, Hiroshima, Japan
SOURCE: Archives of Ophthalmology (Chicago) (1996), 114(8), 929-932
CODEN: AROPAW; ISSN: 0003-9950
PUBLISHER: American Medical Association
DOCUMENT TYPE: Journal
LANGUAGE: English

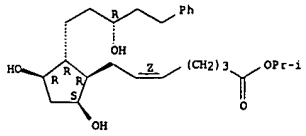
AB The objective is to evaluate the intraocular pressure (IOP)-reducing effect and the side effects of latanoprost (PhXA41), a new phenyl-substituted prostaglandin F2.alpha.-iso-Pr ester analog, in patients with elevated IOP, using timolol maleate as the ref. drug. A total of 184 patients with primary open-angle glaucoma or ocular hypertension at 35 medical centers participated in this randomized double-masked study. The patients were randomized to receive either 0.005% latanoprost once daily or 0.5% timolol maleate twice daily, for a period of 12 wk. Intraocular pressure was measured 24 h after the administration of timolol, at 2, 4, 8, and 12 wk of treatment. Latanoprost reduced IOP at the end of 12 wk by 6.2.+-.2.7 mm Hg (mean.+-.SD) (26.8%), while timolol reduced IOP by 4.4.+-.2.3 mm Hg (19.9%). At all visits latanoprost reduced IOP significantly more than timolol did. The main ocular side effects obsd. in both groups were conjunctival hyperemia and smarting. The main systemic side effect was a reduced pulse rate, which occurred in patients treated with timolol. The results of this study demonstrated that 0.005% latanoprost taken once daily is well tolerated and more effective in reducing IOP than 0.5% timolol taken twice daily. Thus, latanoprost may become an important choice for the medical treatment of glaucoma.

IT **130209-82-4**, Latanoprost
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(comparison of latanoprost and timolol in primary open-angle glaucoma and ocular hypertension in humans)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 27 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



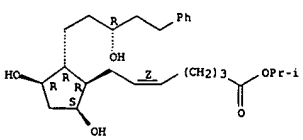
L18 ANSWER 28 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:342581 CAPLUS
DOCUMENT NUMBER: 125:25927
TITLE: A 6-month, randomized, double-masked comparison of latanoprost with timolol in patients with open angle glaucoma or ocular hypertension
AUTHOR(S): Fristroem, Bjoern
CORPORATE SOURCE: Department Ophthalmology, University Linkoping, Linkoeping, Swed.
SOURCE: Acta Ophthalmologica Scandinavica (1996), 74(2), 140-144
CODEN: AOSCFV; ISSN: 1395-3907
PUBLISHER: Scriptor
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The intraocular pressure reducing effect and side-effects of latanoprost, a phenyl-substituted prostaglandin analog, were compared with those of timolol, in a group of 31 glaucomatous or ocular hypertensive patients, divided into three subgroups. The study was randomized and double masked. At the end of 6 mo's treatment with latanoprost 0.005% once daily, either as a morning dose or as an evening dose, there was a redn. in intraocular pressure of 33% (p<0.001) and 36% (p<0.001), resp. The intraocular pressure redn. of timolol 0.5%, administered twice daily was 26% (p<0.001). There was no significant difference in conjunctival hyperemia between the groups and there were few subjective symptoms in any of the patients. One patient with a light green-brown iris, treated with latanoprost in one eye only, exhibited an increase in iris color in the treated eye at week 26, and did not show any signs of reversion 9 mo after discontinuing the therapy. It may be concluded that latanoprost is well tolerated and at least as effective as timolol in reducing intraocular pressure in patients with glaucoma or ocular hypertension when applied once daily. The exact mechanism behind the increase in iris pigmentation and the clin. significance of this previously unknown side-effect needs to be investigated further.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(comparison of latanoprost with timolol in humans with open angle glaucoma or ocular hypertension)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



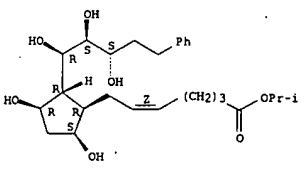
L18 ANSWER 29 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:318580 CAPLUS
DOCUMENT NUMBER: 125:33347
TITLE: Regio- and Stereoselective Reactions of 17-Phenyl-18,19,20-trinorprostaglandin F2.alpha. Isopropyl Ester
AUTHOR(S): Liljebris, Charlotta; Nilsson, Bjoern M.; Resul, Bahram; Hacksell, Uli
CORPORATE SOURCE: Uppsala Biomedical Center, Uppsala University, Uppsala, S-751 23, Swed.
SOURCE: Journal of Organic Chemistry (1996), 61(12), 4028-4034
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:33347

AB Novel prostaglandin F2.alpha. derivs., functionalized at C-13 and C-14, have been prepd. (15S)- and (15R)-17-phenyl-18,19,20-trinorprostaglandin F2.alpha. iso-Pr ester were stereoselectively epoxidized, using Sharpless conditions, to produce each of the four diastereomeric epoxides. Treatment of the four epoxides with LiOH stereospecifically-produced the pentahydroxy substituted analogs. Alternatively, the epoxides were allowed to react with thiophenolate ion. The attack of the sulfur nucleophile on the epoxide occurred at either C-13 or C-14 depending on the stereochem. of the epoxide and of C-15.

IT **177616-24-9P 177616-25-0P 177616-26-1P**
177768-50-2P 177768-51-3P 177768-52-4P
177768-53-5P 177768-54-6P 177768-55-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(regio- and stereoselective reactions of phenyltrinorprostaglandin F2.alpha. iso-Pr ester)

RN 177616-24-9 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(1,2,3-trihydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1R*,2S*,3S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

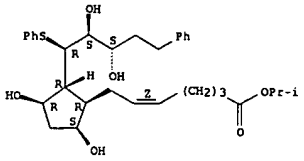
Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



RN 177616-25-0 CAPLUS
CN 5-Heptenoic acid, 7-[2-(2,3-dihydroxy-5-phenyl-1-(phenylthio)pentyl]-3,5-dihydroxycyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1R*,2S*,3S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

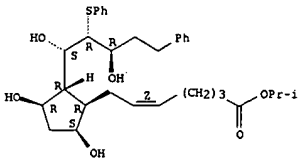
Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

L18 ANSWER 29 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 177616-26-1 CAPLUS
CN 5-Heptenoic acid, 7-[2-[1,3-dihydroxy-5-phenyl-2-(phenylthio)pentyl]-3,5-dihydroxycyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1S*,2R*,3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

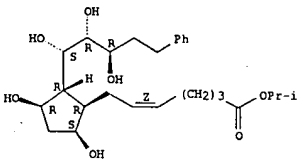
Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



RN 177768-50-2 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(1,2,3-trihydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1S*,2R*,3S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

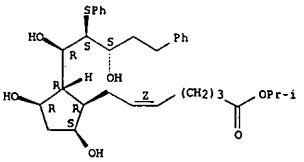
Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

L18 ANSWER 29 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



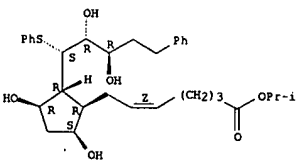
RN 177768-53-5 CAPLUS
CN 5-Heptenoic acid, 7-[2-[1,3-dihydroxy-5-phenyl-2-(phenylthio)pentyl]-3,5-dihydroxycyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1R*,2S*,3S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



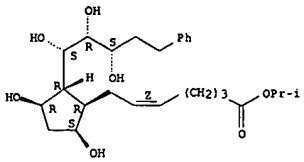
RN 177768-54-6 CAPLUS
CN 5-Heptenoic acid, 7-[2-[2,3-dihydroxy-5-phenyl-1-(phenylthio)pentyl]-3,5-dihydroxycyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1S*,2R*,3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



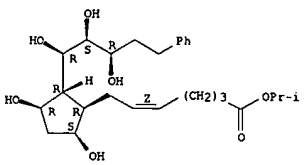
RN 177768-55-7 CAPLUS
CN 5-Heptenoic acid, 7-[2-[1,3-dihydroxy-5-phenyl-2-(phenylthio)pentyl]-3,5-

L18 ANSWER 29 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 177768-51-3 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(1,2,3-trihydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1R*,2S*,3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

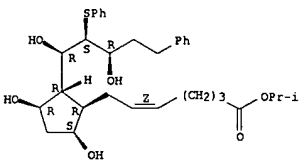


RN 177768-52-4 CAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(1,2,3-trihydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1S*,2R*,3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

L18 ANSWER 29 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)
dihydroxycyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1R*,2S*,3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



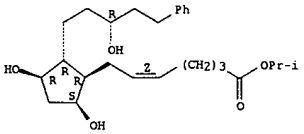
L18 ANSWER 30 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:229259 CAPLUS
DOCUMENT NUMBER: 124:279917
TITLE: The effects of prostaglandins on the blood-ocular barrier
AUTHOR(S): Kosaka, Toshiya; Mishima, Hiromu K.; Kiuchi, Yoshiaki; Kataoka, Katsuko
CORPORATE SOURCE: School of Medicine, Hiroshima University, Hiroshima, 734, Japan
SOURCE: Japanese Journal of Ophthalmology (1995), 39(4), 368-76
CODEN: JJOPA7; ISSN: 0021-5155
PUBLISHER: Japanese Journal of Ophthalmology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of prostaglandins (PGs) and PG-related compds. on the blood-ocular barriers were examd. using pigmented rabbits. Latanoprost (PhXA41), PGF2.alpha.-iso-Pr ester (PGF2.alpha.-IE) or PGE2 was topically applied once only or once daily for 8 wk. Aq. flare was measured with a laser flare-cell meter, and morphol. changes in the ciliary processes after repeated applications of a test drug were investigated by means of light or electron microscopy using horseradish peroxidase (HRP) as a tracer. PGF2.alpha.-IE and PGE2, but not PhXA41, caused an initial rise in the aq. flare after application. No morphol. changes were found in the ciliary processes after 8-wk PhXA41 application. After 8-wk application of PGF2.alpha.-IE or PGE2 dilation of ciliary channels in the ciliary processes were found. Leakage of i.v. injected fluorescein was measured by a vitreous fluorophotometer after an intravitreal injection of PGE2, PGF2.alpha. or PhXA41. Vitreous fluorescence was significantly higher in treated eyes than in controls after intravitreal injection of PGE2 or PGF2.alpha., while it showed no significant change after intravitreal injection of PhXA41. Only PGE2 caused morphol. changes in the retina. These results suggest that PhXA41 does not compromise the integrity of the blood-ocular barriers, and has a potential as a future anti-glaucoma eye drop.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effect on blood-ocular barrier)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 30 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

L18 ANSWER 31 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:222254 CAPLUS
DOCUMENT NUMBER: 124:260699
TITLE: Prostaglandin f esters
INVENTOR(S): Miyazaki, Tohru; Kawamura, Masanori; Shirasawa, Eiichi
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: Can. Pat. Appl., 43 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2145110	AA	19950923	CA 1995-2145110	19950321
JP 07309833	A2	19951128	JP 1995-86545	19950317
NO 9501060	A	19950925	NO 1995-1060	19950320
FI 9501329	A	19950923	FI 1995-1329	19950321
CN 1112549	A	19951129	CN 1995-104076	19950321
EP 686628	A2	19951213	EP 1995-301909	19950322

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
PRIORITY APPLN. INFO.: JP 1994-75381 19940322
OTHER SOURCE(S): MARPAT 124:260699

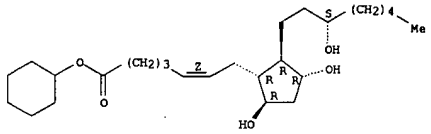
AB Prostaglandin F esters of formula I: wherein R1 is a C1-6 alkyl, a C4-7 carbocycle, or a C1-4 alkyl substituted by a C4-7 carbocycle, the C4-7 carbocycle being optionally substituted by one or more groups independently selected from C1-4 alkyl, C1-4 alkoxy, halogen, nitro and trifluoromethyl; R2 is a bond or C1-4 alkylene; R3 is C1-7 alkyl; and the 9-hydroxy group is .alpha. or .beta.; with the provisos that: (i) when the 9-hydroxy group is .alpha. then: (a) R2-R3 is not n-pentyl; and (b) when R1 is Et and the 13 and 14 positions are singly bonded ro when R1 is Et and the 13 and 14 positions are doubly bonded, then R2-R3 is not 1,1-dimethylpentyl; and (ii) when the 9-hydroxy group is .beta., (a) R1 Et and the 13 and 14 positions are doubly bonded then R2-R3 is not n-pentyl or 1,1,-dimethylpentyl; and (b) when R2-R3 is n-pentyl and the 13 and 14 positions are singly bonded then R1 is not C1-4 alkyl; or a cyclodextrin clathrate thereof, possess ocular hypotensive activity at low concn. and low stimulus and are therefore useful for preventing and/or treating for glaucoma. Processes for their prepn. and the use of 16,16-dimethyl PGF2.beta. Et ester in the treatment of glaucoma are also disclosed.

IT **175282-93-6P 175282-94-7P 175282-95-8P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of prostaglandin f esters as ocular antihypotensives)

RN 175282-93-6 CAPLUS
CN Prost-5-en-1-oic acid, 9,11,15-trihydroxy-, cyclohexyl ester, (5Z,9.beta.,11.alpha.,15S)- (9CI) (CA INDEX NAME)

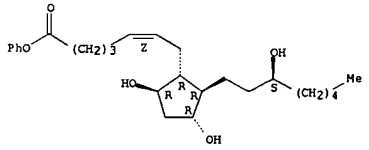
Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 31 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



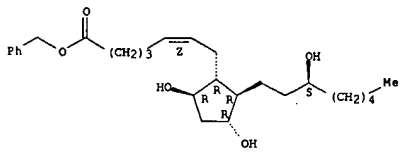
RN 175282-94-7 CAPLUS
CN Prost-5-en-1-oic acid, 9,11,15-trihydroxy-, phenyl ester, (5Z,9.beta.,11.alpha.,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 175282-95-8 CAPLUS
CN Prost-5-en-1-oic acid, 9,11,15-trihydroxy-, phenylmethyl ester, (5Z,9.beta.,11.alpha.,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 32 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:209562 CAPLUS
DOCUMENT NUMBER: 124:306931
TITLE: Around-the-clock intraocular pressure reduction with once-daily application of latanoprost by itself or in combination with timolol
AUTHOR(S): Racz, Peter; Ruzsonyi, Maria R.; Nagy, Zoltan T.; Gagyi, Zsuzsanna; Bito, Laszlo Z.
CORPORATE SOURCE: Department Ophthalmology, Markusovszky Hospital, Szombathely, Hung.
SOURCE: Archives of Ophthalmology (Chicago) (1996), 114(3), 268-73
CODEN: AROPAW; ISSN: 0003-9950
PUBLISHER: American Medical Association
DOCUMENT TYPE: Journal
LANGUAGE: English

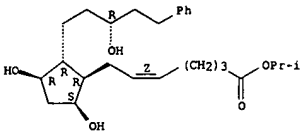
AB The objective of the study was to det. whether once-daily, in the morning, topical application of the new ocular hypotensive prostaglandin analog, latanoprost, yields nocturnal intraocular pressure (IOP) redn. similar to its diurnal IOP reducing efficacy. The study was a placebo-controlled, randomized, and double-masked study on hospitalized patients with ocular hypertension or glaucoma. Patients in group 1 (n=9) were maintained on twice-daily applications of 0.5% timolol maleate. Patients in group 2 (n=10) terminated their timolol treatment 3 wk before the beginning of the study. In both groups the test drug (0.005% latanoprost) and its vehicle (placebo) was applied by hospital staff every morning for 9 days. After 4 days of ambulatory treatment, patients were hospitalized, and IOP values were obtained in the supine and sitting positions with a hand-held electronic tonometer (Tono-Pen XL, Bio-Rad, Glendale, Calif) and a Goldmann's applanation tonometer, covering every 2-h interval, around the clock, but not more than at four time points per day during a 5-day period. The mean nocturnal IOPs (Goldmann's applanation tonometer) collected for 5 days were mean.+-.SEM 17.9.+-.0.6 vs 20.2.+-.0.6 mm Hg and 16.8.+-.0.3 vs 20.6.+-.0.5 mm Hg for the study vs the control eyes in group 1 and group 2, resp. These nocturnal IOP redns. were statistically significant (P<.001, two-tailed paired Student's t test). The differences between diurnal and nocturnal IOP redns. (handheld electronic or Goldmann's applanation tonometer) were minimal (<0.3 mm Hg) and statistically not significant (P>.31, two-tailed paired Student's t test). In conclusion, it was found that once-daily latanoprost treatment provides uniform circadian (around-the-clock) IOP redn. by itself, or in combination with timolol.

IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(around-the-clock intraocular pressure redn. with once-daily application of latanoprost by itself or in combination with timolol in humans)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L18 ANSWER 32 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)



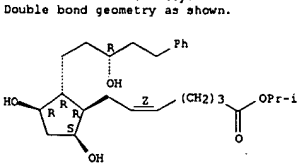
L18 ANSWER 33 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:52891 CAPLUS
DOCUMENT NUMBER: 124:194838
TITLE: A study of the interactive intraocular pressure (IOP)-lowering effect in the concomitant treatment of PhXA41 (PGF2.alpha. related substance) and pilocarpine eyedrops
AUTHOR(S): Yamabayashi, Shigeki; Hosaka, Osamu; Haruyama, Hiroshi; Satoh, Susumu; Hosoda, Motohiro; Tsukahara, Shigeo
CORPORATE SOURCE: Dep. Ophthalmol., Yamanashi Med. Univ., Yamanashi, 409-38, Japan
SOURCE: Atarashii Ganka (1995), 12(12), 1953-6
CODEN: ATGAEX; ISSN: 0910-1810
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB The intraocular pressure (IOP)-lowering in the concomitant treatment with PhXA41 (latanoprost) and 2% pilocarpine eyedrops was examd. For comparison, 22 eyes of 11 patients with ocular hypertension or primary open-angle glaucoma, were divided into one group pre-treated with PhXA41 and one pre-treated with pilocarpine. IOP decreased significantly in both groups compared with the baseline, the effect being further enhanced by the concomitant administration. The concomitant period IOP redn. in the pilocarpine pre-treated group was smaller to that in the PhXA41 pre-treated group. These results confirm that 2% pilocarpine eyedrops and PhXA41 can be combined in clin. treatment.

IT **130209-82-4**, PhXA41
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(interactive intraocular pressure lowering effect in concomitant treatment of PhXA41 pilocarpine eyedrops in humans with ocular hypertension or primary open-angle glaucoma)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 34 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:677367 CAPLUS
DOCUMENT NUMBER: 123:75622
TITLE: Use of prostaglandins for increasing pigmentation in tissues
INVENTOR(S): Stjernschantz, Johan; Resul, Bahram
PATENT ASSIGNEE(S): Pharmacia AB, Swed.
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

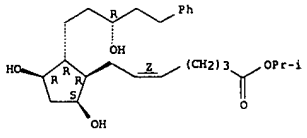
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9511003	A1	19950427	WO 1994-SE985	19941019
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2174655	AA	19950427	CA 1994-2174655	19941019
AU 9480086	A1	19950508	AU 1994-80086	19941019
EP 724425	A1	19960807	EP 1994-931257	19941019
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09504021	T2	19970422	JP 1994-511697	19941019
PRIORITY APPLN. INFO.:			SE 1993-3444	19931020
			WO 1994-SE985	19941019

AB A method for producing a compn. contg. prostaglandins, derivs. or analogs thereof for increasing pigmentation of tissues or modified tissues, e.g. hair, is disclosed. Among these, derivs. and analogs of prostaglandin F2.alpha. and prostaglandin E2 in particular, are suitable for the purpose. An eye drop contg. 13,14-dihydro-17-phenyl-18,19,20-trinor-PGF2.alpha. iso-Pr ester at 1.5.mu.g/eye/day was applied for 4.5-6 mo to patients with depigmented spots to show repigmentation during treatment with the drug.

IT **130209-82-4P**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prostaglandins for pigmentation of tissue)

RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

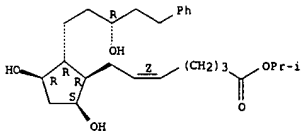
Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 34 OF 95 CAPLUS COPYRIGHT 2003 ACS (Continued)

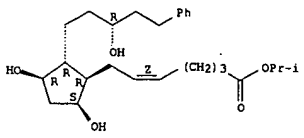
L18 ANSWER 35 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:575900 CAPLUS
DOCUMENT NUMBER: 122:307190
TITLE: The effects of prostaglandins on the blood-retinal barrier
AUTHOR(S): Kosaka, Toshiya
CORPORATE SOURCE: Sch. Med., Hiroshima Univ., Hiroshima, 734, Japan
SOURCE: Nippon Ganka Gakkai Zasshi (1995), 99(4), 412-19
CODEN: NGZAA6; ISSN: 0029-0203
PUBLISHER: Nippon Ganka Gakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The effects of prostaglandin (PG), a novel PG-related compd., and epinephrine on the blood-retinal barrier (BRB) in the rabbit eye were examd. by ophthalmoscopy, fundus photog., fluorescein angiog. (FAG), vitreous fluoro-photometry (VFPM), light and electron microscopy, and the horseradish peroxidase tracer. Intravitreal injection of PGE2 produced retinal vasodilation and large increase in a vitreous fluorescein leakage in VFPM. Intravitreal injection of PGF2.alpha. produced a small increase in vitreous fluorescein leakage in VFPM, but no retinal vasodilation. Intravitreal injection of epinephrine produced retinal vasodilation and a small increase in vitreous fluorescein leakage in VFPM. But intravitreal injection of latanoprost (PhXA41) produced no retinal vasodilation and no increase in vitreous fluorescein leakage in VFPM. After intravitreal injection of PGE2, morphol. changes in the retina were found, but intravitreal injection of PhXA41 did not induce morphol. changes in the BRB or the retina. PhXA41 was less destructive to the BRB and the retina than PGE2, PGF2.alpha., and epinephrine.
IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effect on blood-retina barrier in relation to prostaglandins)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 36 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:501493 CAPLUS
DOCUMENT NUMBER: 122:307171
TITLE: The effects of topical application prostaglandins on the rabbit iridial portion of ciliary process. Light and electron microscope studies after the long-term application
AUTHOR(S): Kosaka, Toshiya
CORPORATE SOURCE: Sch. Med., Hiroshima Univ., Hiroshima, 734, Japan
SOURCE: Hiroshima Daigaku Igaku Zasshi (1994), 42(2), 197-205
CODEN: HDIZAB; ISSN: 0018-2087
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The iridial portion of the ciliary processes in the rabbit were examd. morphol. after topical application of prostaglandins (PG) and novel PG-related compds. Latanoprost (PhXA41), PGF2.alpha.-iso-Pr ester (PGF2.alpha.-IE) or PGE2 was topically applied once daily for 8 wk to one eye, while a soln. to the contralateral control eye was applied in a similar manner. The iridial portion of the ciliary processes were removed after injecting horseradish peroxidase (HRP) via the external maxillary artery. Specimens were processed for light and electron microscopy. After application of PhXA41 1.5 .mu.g, there were no morphol. changes detected in the iridial portion of the ciliary processes. After application of PGF2.alpha.-IE 1.5 .mu.g, the ciliary channels in the iridial portion of the ciliary processes were dilated, and HRP penetrated the posterior chamber. After application of PGF2.alpha.-IE 3.0 .mu.g, some of the non-pigmented epithelial cells of the iridial portion of the ciliary processes had electron-dense cytoplasm. After application of PgE2 1.5 .mu.g, there were large dilated intercellular spaces between epithelial cells. After long-term application of PhXA41, there were no morphol. changes detected in the iridial portion of ciliary processes, but after long-term application of PGF2.alpha.-IE or PGE2 morphol. changes were found.
IT **130209-82-4**, Latanoprost
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of topically long-term application prostaglandins on eye iridial portion of ciliary process)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L18 ANSWER 37 OF 95 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:417320 CAPLUS
DOCUMENT NUMBER: 122:205111
TITLE: Preclinical pharmacology of latanoprost, a phenyl-substituted PGF2.alpha. analog
AUTHOR(S): Stjernschantz, Johan; Selen, Goeran; Sjoequist, Birgtta; Resul, Bahram
CORPORATE SOURCE: Pharmacia Ophthalmics, Glaucoma Research Laboratories, Uppsala, S-751 82, Swed.
SOURCE: Advances in Prostaglandin, Thromboxane, and Leukotriene Research (1995), 23(Prostaglandins and Related Compounds), 513-18
CODEN: ATLRD6; ISSN: 0732-8141
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Latanoprost reduces intraocular pressure (IOP) mainly by increasing the uveoscleral outflow. Conventional outflow of aq. humor is not affected by latanoprost; the aq. humor is shunted into the uveoscleral outflow pathway. Latanoprost had no effects on the pulmonary or the cardiovascular system of anesthetized monkeys.
IT **130209-82-4**, Latanoprost
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preclin. pharmacol. of latanoprost)
RN 130209-82-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.